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THE IMPLEMENTATION OF THE TREAD ACT: ONE YEAR LATER

HEARING

BEFORE THE

SUBCOMMITTEE ON
COMMERCE, TRADE, AND CONSUMER PROTECTION

OF THE

COMMITTEE ON ENERGY AND
COMMERCE
HOUSE OF REPRESENTATIVES

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THE IMPLEMENTATION OF THE TREAD ACT: ONE YEAR LATER

THURSDAY, FEBRUARY 28, 2002

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON COMMERCE, TRADE,
AND CONSUMER PROTECTION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:30 a.m., in room 2322, Rayburn House Office Building, Hon. Cliff Stearns (chairman) presiding.

Members present: Representatives Stearns, Upton, Shimkus, Bryant, Pitts, Bass, Towns, DeGette, Markey, Gordon, and Dingell (ex officio)

Also present: Representatives Sawyer and Barrett.

Staff present: Kelly Zerzan, majority counsel; Ramsen Betfarhad, majority counsel; Brendan Williams, lecislative Clerk; Jonathan Cerdone, majority counsel; and Bruce Gwinn, minority professional staff member.

Mr. STEARNS. Good morning, everybody. I welcome all and call to order this hearing of the Commerce, Trade, and Consumer Protection. I'm especially pleased to welcome Dr. Runge. As this is your first appearance before the committee since your confirmation as National Highway Safety Administration Administrator, I look forward to a productive relationship between NHTSA and this subcommittee, which is entrusted with oversight responsibilities over NHTSA.

I find the subcommittee's oversight vis-a-vis NHTSA as one of the most important responsibilities of this subcommittee. As NHTSA's motto, "people saving people" suggests NHTSA can and does save lives.

It is in this light that we are holding this hearing today examining NHTSA's implementation of the TREAD Act.

In October 2000, Congress enacted a Transportation Recall Enhancement, Accountability, and Documentation Act, in response to the many deaths and injuries attributed to tread separation observed on Ford Explorers equipped with certain Firestone tires. The TREAD Act was enacted in large measure due to the efforts of our full committee chairman, Mr. Tauzin, who at the time Chaired the Commerce Committee's Telecommunications, Trade, and Consumer Protection Subcommittee.

After establishing an extensive hearing record, Chairman Tauzin and other subcommittee members, including myself, recognized

that Congress had to act in order to protect American lives because in some respects NHTSA had failed.

I am even more convinced today than the day we enacted the TREAD Act, that if implemented as Congress intended, the Act can save hundreds, if not thousands of lives. I'm still taken back when told that 40,000 Americans lose their lives and countless thousands are injured in our roads every year. Most of these deaths and injuries can be prevented if people did not drive while intoxicated or simply wore their seatbelts. Even today only 7 out of 10 Americans wear their seatbelts, while in many parts of Europe over 90 percent buckle up. That's 20 percent differential in seatbelt usage between us and some Europeans. It is estimated to cost some 4,000 to 6,000 American lives. That should not be.

Many of the fatalities and injuries on American roads arise from vehicle defects. The Ford Firestone case exemplifies that fact. Just one mandate of the TREAD Act, the early warning reporting that requires the reporting of vehicle problems to NHTSA from a variety of sources, including warranty claims and consumer complaints, I believe, if implemented right, can save thousands of lives throughout the coming year.

In order for the TREAD Act far-reaching safety effects to take hold, NHTSA must promulgate regulations that are both true to the Congressional intent and timely.

We, the Congress, further empower NHTSA with the TREAD Act. We increase NHTSA's funding by $9.1 million so that it could implement the Act. Yet, without NHTSA's diligent and expeditious efforts, we as American drivers will not fully reap the benefits of this TREAD Act.

Therefore, I'm pleased that NHTSA has completed three final rules in a timely manner to date. However, I am concerned that NHTSA has yet to complete 12 final rulemakings, 6 of which are subject to statutory deadlines, the latest being November 2002. I recognize that to date, the Agency has issued nine Notice of Proposed Rulemakings. Still, I agree with the Department of Transportation Inspector General that the final rules may be delayed at least with regard to some of the more complex and as such contentious issues arise. Therefore, unless there are compelling reasons to the contrary, I request that NHTSA periodically inform this committee as to its progress on the various TREAD Act rulemaking.

Let me emphasize that I do appreciate that Congress has asked NHTSA to undertake a large, and in part, complicated undertaking. So I do compliment the Agency for its efforts to this date and in particular, I commend the Agency for its responsiveness to concerns raised by the Department of Transportation Inspector General's Report and the OMB.

We have the opportunity at this hearing to explore, in detail, both the IG's Report and the OMB's evaluation of NHTSA's tire pressure warning device NPRM.

Clearly, it is important that NHTSA complete its TREAD Act rulemaking in a timely fashion, since at least with regard to two rulemakings, one, early warning data reporting; and two, rollover rating system, I would not want NHTSA to shortchange the quality of those rules because of time limitations. I'm not suggesting that NHTSA take its time with these two rulemakings, but rather I find

both the early warning data reporting and rollover rating system rules extremely important as they address critical issues and enjoy exceptional complexity.

It is imperative, for example, that NHTSA reach an optimal rule for the early warning data reporting. NHTSA has to get it right the first time because this rule is setting a framework. The extent and quality of data collected and analyzed under this rule will color all of NHTSA's work for the near future. If this rule is done right, as I said earlier, it will save countless lives in years to come. It's that simple.

The object of the rule is not simply to collect more data sets. We all appreciate the raw data in itself means little. It is estimated that if NHTSA were to collect all the nearly warning data as contemplated today, it will become the largest warehouse of data in the world. Warehousing data doesn't save lives. NHTSA must carefully consider the type, quality and relevance of the data collected, the way the data is processed and catalogued and ultimately analyzed. Injecting the required intelligence into the processing of each warning data is a considerable undertaking and as such, NHTSA must be rigorous when promulgating the early warning rule. And obviously, this probably will take time.

The fact is that we in Congress can enact many laws such as TREAD Act, designed to save motorists' lives, yet if such laws are not implemented properly and enforced rigorously, our efforts would have been in vain.

And finally, I request that NHTSA submit its study of the use and effectiveness of booster seats to the subcommittee as soon as possible as it was due last November.

That study is of particular interest as the committee finds the booster seat issue of significant importance.

I thank all the witnesses who are appearing today and I look forward to hearing your testimony and with that, the distinguished ranking member from New York, Mr. Towns.

Mr. TOWNS. Thank you very much, Mr. Chairman. More than 15 months ago in response to the Firestone ATX Wilderness tire recalls, as well as the thousands of people who were killed and injured annually in highway tragedies, we came together to address and pass bipartisan legislation, the Transportation Recall Enhancement, Accountability, and Documentation.

This public law was enacted with the hope of saving lives by providing as much vehicle accident information as quickly as possible to regulators, increasing access to information for consumers, requiring a tire pressure monitoring system in all new vehicles, updating standards for tires, mandating child improvement seats and developing a dynamic rollover test. In addition, TREAD increased the resources available to the National Highway Traffic Safety Administration, as my colleague from Florida and the chairman of this committee indicated to highly result in flood of new information that will come in.

These requirements were mandated not to make onerous new demands on industry, but rather to save lives. Unfortunately, while we pass this legislation with great hope, to date, 4 of the 9 statutory deadlines have not been met and the most difficult and complex rules await final action.

Mr. Chairman, I welcome you calling this hearing and I'm eager to hear from the witnesses because what we're talking about here today is saving lives. And I can't think of anything more important than saving lives.

On that note, I yield back.

Mr. STEARNS. I thank my colleague. The gentleman, the chairman of the Telecommunications Subcommittee who is also active with the TREAD Act, Mr. Upton from Michigan.

Mr. UPTON. Thank you, Mr. Chairman, and I applaud you for having this hearing today to look at the implementation of the TREAD Act. I have a full statement that I'll put into the record, but I'd like to say just a couple of things at the beginning. As many of you know I was the principal author of the TREAD Act and as then chairman of the Oversight Investigation Subcommittee, our role was to identify problems and then to come back with legislation to make sure that they never happen again. In the case of the Firestone tire mess, we saw more than a hundred deaths across the country that were directly attributable to those tires. And as we began to examine this situation we found, in fact, that we had not seen tire standards updated since 1968 and as a young grade schooler then I can remember changing tires with my dad when we went to winter tires from the summer tires in Michigan, things like radials and those types of tires were not there, steel-belted radials weren't known to exist at that point. And we knew that when we found these enormous problems, in fact, we needed legislation to correct it. And that was why we saw tremendous bipartisan support in terms of the TREAD Act. Then Chairman Tauzin of this subcommittee worked with us. We worked very carefully with the Senate, was able to pass this legislation, as I recall, without a single dissenting vote and it was done. And now this oversight hearing to look at the implementation of the TREAD Act and to make sure that, in fact, we don't run into the same problems that we saw exist prior to the passage of the TREAD Act.

So I look forward to the testimony, to the work, to make sure that all travelers on our highways, both drivers and passengers are going to be ensured of the safer travel and I look forward to hearing the testimony and asking some questions and thank you very much, Mr. Chairman, and others for going ahead with this hearing. I yield back the balance of my time.

[The prepaed statement of Hon. Fred Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

During the fall of 2000, I authored the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act in order to get to the bottom of what is wrong with the faulty tires and what we need to do to fix them. Congress did this to ensure that no family would have to endure the same pain as those who have already lost family members due to these horrific accidents. Mr. Chairman I am very pleased that we are holding this hearing today in order to address the implementation of the T.R.E.A.D. Act.

I am glad to see the good work of this committee and Congress and that the T.R.E.A.D. Act was able to expose flaws, so that in fact we could take faulty tires away from people who might have had used them. I believe it is important to note that this law has been both effective and positive.

As the Administration continues the rule making process I would like to give them my full support. I would certainly like to reiterate the prominent issue of the law, to ensure the safety of American consumers. In addition, I would like to take

this opportunity to remind them that this law needs be implemented fully, effectively, and expediently. I look forward to further hearings and will personally continue to follow this process.

Mr. STEARNS. And I thank my colleague who again was the author of the TREAD Act and for all the work that he did in the last session.

I believe the ranking member of the full committee, Mr. Dingell is here and is recognized for an opening statement.

Mr. DINGELL. Mr. Chairman, first of all, I thank you for holding this hearing and I commend you. The questions that lie before us are very important. The tire safety issue that caused this committee and the Congress to enact the TREAD Act in November 2000 remains a real concern today. It is important that the provisions of the TREAD Act be carried out as intended by the Congress.

I am going to observe that I am extremely discouraged, however, that nothing much appears to have changed in the National Highway Traffic Safety Administration, NHTSA, since the TREAD Act became law. Prior to the TREAD Act, NHTSA was awash in information, including information about defective Firestone tires. The information was filed away and not used. The NHTSA appears today to be awash in information. We're not sure whether the information has been filed away or what has been done with it. In any event, not much does seem to have been done in a way which would contribute to safety on the highways. This is, was and will be a wholly unacceptable way for NHTSA to do its business and the committee clearly said so before at the time the TREAD Act was considered. I had hoped that that warning would be a measure which would dictate to NHTSA that they should do things differently and should begin a new, vigorous and intelligent approach to their responsibilities.

As a result, I would note the fundamental purpose of the TREAD Act was to change the way NHTSA handled safety investigations. It is not good enough that NHTSA has only access to information about possible safety problems. What must happen is that NHTSA must actually evaluate the information it receives and see that it receives proper information. And it then must determine what action and whether action is needed. Nevertheless, the Department of Transportation's Inspector General says that NHTSA continuously fails to read and react to the information it receives. Information unused, is of course, quite without value, quite worthless and either is a policy or is a law enforcement matter.

In its report issued on January 3, 2002, the Inspector General had some interesting things to say and I quote, "the success of the TREAD Act will ultimately rise or fall on the quality and the usefulness of new information system and the ODI's"—that's the Office of Defect Investigations—"ability to identify potential defects." And according to the Inspector General, NHTSA's plans for its new information system and I here will quote from the report again to be, and I quote, "fully operational by fall of 2002 is at risk because of the poor project planning and management." The Inspector General went on to say that NHTSA cannot identify safety defects in a timely manner because it has, and I quote again, "an unstructured

approach for analyzing data and determining if a potential defect exists and warrants further investigation."

So here we are, a year and a half after the TREAD Act was enacted and NHTSA still has no methodology for analyzing complaints. NHTSA is on the verge of requiring thousands of motor vehicle and equipment manufacturers, both foreign and domestic, to provide it with all kinds of information, including every customer complaint and handwritten field reports. According to some, NHTSA will be sitting on top of the world's largest data base outside the military, and yet, NHTSA still has not set up methods and procedures for evaluating safety administration.

I think we can all be disappointed at this situation. I had hoped that NHTSA would understand and appreciate the deep concerns of the committee and the Congress. I thought NHTSA was committed to making changes that would allow it to identify and to respond to safety problems because they're the agency that we have set up to address those kinds of questions.

I look forward to hearing the Administrator explain why the Agency decided against developing a methodology for analyzing complaints. I fully appreciate that it takes money, sophisticated talent, a high degree of cooperation with the manufacturers to establish a new and effective information system to evaluate the massive quantity of new information NHTSA will receive. In the TREAD Act hearings, I repeatedly asked the Agency to identify for us the additional resources they would need to do this job properly. The only response was that it could be done with minimal new funds. I think that that may be a little bit like the story of Cinderella. In any event, an old adage is that you get what you pay for. It seems appropriate here.

The Inspector General expresses concerns about NHTSA's plans for a new system which will use off-the-shelf software and which is only going to cost $5 million over a 3-year period. I think that we should all share the concern expressed by the Inspector General and this may be another fairy tale for us and may lead us to more risk for the American public and more trouble for the industry because NHTSA is not going to be able to respond to its responsibilities under the law.

We need a system that works. We don't need one which is cheap. It has to work. Without an effective data management system and without plans to use that effective data management system well and wisely, the TREAD Act simply cannot be fully implemented and most importantly, injuries and fatalities will continue to occur. And these are injuries and fatalities that NHTSA should be able to prevent.

I urge NHTSA to give its new data system the attention and to seek the resources necessary to make it the accident prevention tool that Congress intended it to be.

I look forward to what the hearings develop, but I do so, Mr. Chairman, without great comfort. Thank you.

Mr. STEARNS. I thank the gentleman. The gentleman from Illinois, Mr. Shimkus.

Mr. SHIMKUS. Thank you, Mr. Chairman. I want to thank you for bringing up the child safety seat issue, Rule 14H and 14I that were

due in November. That was a provision that we had worked on and I hope we see some rapid movement on that.

The second thing is I've always been somewhat concerned about some bias within DOT or NHTSA with respect to motorcycle riders and there is a feeling out there that this new—the tire act will be used to promulgate rules and standards on motorcycle equipment, helmets and outerwear which when Congress has an intent to do that we will pass legislation to direct that. This is not a time to use the regulatory power or authority in which to manipulate Congressional intent. I was the author of the child safety seat legislation. We specifically put it in the legislation. There was no intent in this legislation to address motorcycle outerwear and we will be following that closely.

Third thing is there is a concern by the industry on the tire identification number being required on both sides of the tire. There is some safety implications to workers in the facilities. I'm going to tour a facility in my District within the next week because of removing the plates, the hot and cold aspects of tires. There's got to be a better way and I hope that you all look diligently to find that.

And with that, Mr. Chairman, I yield back my time.

Mr. STEARNS. I thank the gentleman. The gentleman from Tennessee, Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman. Many of my concerns have been addressed in earlier remarks, so I will make my remarks part of the record and then would like to have some questions to this panel at a later date.

Mr. STEARNS. Okay. The gentleman also from Tennessee, Mr. Bryant.

Mr. BRYANT. Thank you, Mr. Chairman, and I too appreciate you having these hearings. Certainly the last time we had hearings along these lines in the TREAD Act it was certainly a period in which we were experiencing some defects across the country with our tires.

Both Mr. Gordon and I represent, or actually he represents one of the Firestone plants and the headquarters is up in Tennessee also and I recall vividly their role in this and certainly their contribution in terms of the legislation itself and their support, there are some amendments of this bill, particularly with the collection and destruction processes involved in some of their tires that were affected by the recall. But I look forward to hearing from the witnesses today about this bill and how it's worked so far.

In enacting legislation there's always kinks to be worked out and changes that need to be made during the process. I think once fully enacted NHTSA is going to be receiving a great deal of data and it's important that a uniform and organized system be utilized to organize this data.

There's also controversy over what the standard for tire pressure monitoring systems should be. I look forward to hearing from our witnesses regarding their thoughts on the standard of alerting a driver of a tire pressure and possible deflation. I also understand that NHTSA is in the process of possibly changing the rollover resistance ratings. There are significant differences between the static stability factor method and the dynamic reliever test and I'd like

to hear about the benefits that these witnesses believe one method has over the other.

I look forward to hearing from our witnesses on all of these issues today.

All that said, I like many others on this committee have other hearings also going on at the same time, so we are forced to go in and out and will be in between these hearings so there may be times that I will be out and won't be able to hear all of this testimony that I'm looking forward to hearing. So I will try to follow your written transcript of this hearing as well and I thank you, gentlemen, for being here today and again, I thank our Chairman for this very distinguished panel of witnesses today.

Thank you.

Mr. STEARNS. I thank my colleague and we're welcoming also Mr. Sawyer from Ohio who is a member of the full committee, but not a member of the subcommittee and he's welcome to have an opening statement.

Mr. SAWYER. Mr. Chairman, thank you very much for the opportunity to participate in this way. You're very generous with the time of this subcommittee. I also want to echo what we've heard from others commending you for your diligence in making sure that we don't just enact bills requiring regulatory action, but that we continue to monitor and evaluate the law's implementation.

Let me also suggest that I share the concern that others have expressed that NHTSA may be underestimating the time and cost to develop the data base that will be required to handle this enormous amount of information. It strikes me that a $5 million off-the-shelf system just does not seem adequate and that we run the risk of what we talked about in the earlier hearings of a data dump that undermines the value of whatever information we have.

With regard to specific rulemakings, I have some reservations that we may not actually be protecting consumers. It seems to me that it has been lost in NHTSA's internal debate about whether to use direct or indirect monitoring systems, the question of whether allowing motorists to ride on tires that are 25 percent under inflated is itself safe. The rule, it seems to me would allow perhaps up to half the motorists on the rode to operate their vehicles below safe inflation rate. The problem is not one of immediate failure, but rather of cumulative damage. It's a problem that over time would allow a tire to fail catastrophically. What's more important even that that, however, is the fact that an accurate early warning system is critical because it may actually encourage drivers to drive for longer periods of time on under inflated tires and thereby risk their safety due to that cumulative damage.

I'm not so concerned about which system is chosen, but rather that we recognize that the tolerances are not very great.

Finally, just let me say that I share with others the concern that they've expressed about the tire labeling rule. The question of whether we are actually increasing safety in any substantial way by requiring the tire identification number on both sides of the mold is questionable. We do know, however, that that requirement will pose substantial safety risk to workers and/or very substantial cost and loss of productive time to manufacturers for a minimal gain in consumer awareness. The descriptions that Mr. Bryant of-

fered about workers climbing into 300 degree molds in order to change the numbers once a week seems to me is very problematic.

With that, Mr. Chairman, I appreciate the change to be here. I will submit my full statement for the record and thank you for the opportunity to make these comments today.

Mr. STEARNS. And I thank my colleague and we also welcome the gentle lady from Colorado, Ms. DeGette, for her opening statement.

Ms. DEGETTE. Thank you, Mr. Chairman. Mr. Towns apologizes for having to leave, but I'm always happy to pinch hit for him and I want to thank you, Mr. Chairman, for holding this hearing. I know a lot of the issues that I cover in my opening statement have been covered by the panel here this morning, so let me just say that I'm really pleased we're having this hearing today to talk about what has happened with implementation of TREAD Act.

I'm also concerned about child restraints and I realize that we haven't had a full recommendation on this, but I look forward to that recommendation in November. As the mother of two young children who are now getting older, I know how important child restraints are and I look forward to hearing these recommendations.

With that, Mr. Chairman, I'll submit the rest of my opening statement for the record and I'm eager to hear the witnesses today.

[The prepared statement of Hon. Diana DeGette follows:]

PREPARED STATEMENT OF HON. DIANA DEGETTE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

I want to thank you Mr. Chairman for holding this hearing, and I want to thank our witnesses for being here today. I recognize that the National Highway Traffic Safety Administration (NHTSA) has worked under considerable time pressure and appreciate their expedited review of these critical issues.

This is an excellent opportunity to determine what has been achieved since Congress passed the TREAD, or Transportation Recall Enhancement, Accountability and Documentation, Act. The most important duty of this subcommittee is to ensure consumer protection. I am therefore glad to hear of NHTSA's progress in addressing the automobile safety concerns that were first raised following the Firestone ATX and Wilderness tire recalls. This is also the time to determine what challenges remain in the implementation of the TREAD Act.

Early detection of dangerous patterns of tire and automobile defects can save lives. With this in mind, the TREAD Act has introduced provisions that will require vehicle and equipment manufacturers to report information regarding warranty adjustments, injuries and fatalities to NHTSA. By any account, these new reporting requirements will result in an enormous amount of information. It is believed that NHTSA's database will be the largest database in the world. In the world. How will NHTSA manage this information? What plans are in place to ensure that the data is thoroughly analyzed? This early warning provision is at the heart of the TREAD Act, so it is vitally important that NHTSA have in place information systems to handle this gigantic influx of information.

We will also discuss the recommendations for tire pressure monitoring systems. Underinflated tires present a significant hazard. NHTSA was charged with examining the two types of systems for monitoring tire pressure currently available: indirect and direct. Which system is ultimately chosen will significantly impact the auto industry, as well as consumers.

Obviously an issue that is of great concern to all of us here is child restraints. I realize that you have not issued your full recommendations on this, but I look forward to your report, which is due this November.

And finally, there is the question of how to best test and predict vehicle rollover resistance. NHTSA was instructed to develop a dynamic test of vehicle rollover, again by this November. The National Academy of Sciences' recent recommendations support this development to supplement the current testing NHTSA performs. I know that there are substantial hurdles to actualizing this test and I anticipate hearing about the challenges and suggestions for overcoming them.

Again, I look forward to hearing from all of our witnesses and I welcome the healthy debate that will ensue.

Mr. STEARNS. By unanimous consent, so ordered.

[Additional statement submitted for the record follows:]

PREPARED STATEMENT OF HON. W.J. "BILLY" TAUZIN, CHAIRMAN, COMMITTEE ON COMMERCE

Thank you, Mr. Chairman for calling this important hearing today. I would like to begin by welcoming the NHTSA Administrator, Dr. Jeffrey Runge, to our Committee. This is your first time testifying before us, and I find it quite fitting that your testimony here today is on the implementation of such a significant piece of safety legislation—the TREAD Act.

The Transportation Recall Enhancement, Accountability, and Documentation Act, or "TREAD" Act, was one of the most important pieces of legislation this Committee produced in the 106th Congress. The Act revolutionized how NHTSA will collect, analyze and assimilate data and established new safety standards that will improve protection of the driving public.

As we evaluate the agency's compliance with TREAD, we cannot forget why we are here, and what spawned this legislation. Our hearings in the 106th Congress confirmed that Firestone tires were de-treading at unusually high rates, causing rollovers that injured, and in many cases killed, the vehicle's occupants. Because of this safety defect, more than 13 million Firestone tires were recalled at a cost of nearly $3 billion—and more than 200 people needlessly lost their lives.

During our Firestone hearings, we learned a couple of things. First, it was clear that the data available to NHTSA regarding Firestone's tread-separation problems were woefully insufficient. Although testimony showed that the agency had received complaints about the tires, both from consumers and from an insurance company, it did not receive data about Ford's foreign recall actions or the internal company claims data related to these accidents.

Second, it was clear that NHTSA did not effectively use the data it did have to spot tire-failure trends. Indeed, NHTSA admitted that it needed to review and revise its own policies for evaluating its data. In response to these problems, we passed the TREAD Act to prevent this kind of disaster from happening again.

So, how is NHTSA doing? As can be expected, it is doing well in some areas, and could improve in others. One rulemaking that has received significant attention is the tire-pressure monitoring rule. As part of the TREAD Act, we required that NHTSA draft a regulation that would require manufacturers to install tire pressure monitoring systems, which that tell a driver when a tire is significantly under inflated.

As NHTSA will tell us today, there are two different systems on the market that can do this: direct and indirect. NHTSA's draft final rule required the use of a direct monitoring system, after a four-year phase-in period. While more expensive than an indirect monitoring system, the direct system offers significant benefits. Namely, it will alert a driver when all four tires have become under inflated at the same rate, or when two tires on the same axel have become under inflated at the same rate. The indirect system, at this point, does not, and cannot, detect these kind of under-inflation situations.

According to NHTSA, there may be reason for concern about this: 2.8% of cars, and nearly 4% of light trucks had *all four tires* under-inflated by at least 25% of the recommended tire pressure. Now that doesn't sound like a lot of vehicles, but *it totals approximately seven million vehicles.* That's more than the number of people who live in entire state of Louisiana!

Allowing the use of an indirect tire pressure monitoring system would leave these 7 million vehicles without any tire pressure warning, which is simply unacceptable and not consistent with the TREAD Act.

The TREAD Act required this rule to be completed on November 1, 2001. NHTSA sent a draft final rule to OMB in December, but in February, OMB sent the draft rule back to NHTSA with some concerns indicating that perhaps OMB preferred the indirect to the direct monitoring system. But safety has to be the number one concern at NHTSA, and certainly when we passed the TREAD Act, the safety of the driving public was our primary goal. Protecting some cars, but not others, was *not* what we intended when we drafted the tire pressure monitoring rule.

I understand that OMB and NHTSA may be on the verge of reaching an agreement on the language of this rule. And I am glad this rule is close to seeing the light of day. I do continue to have concerns, however: OMB is not an agency with vehicle safety expertise. So I hope that it will be cautious when it decides to wade into vehicle safety debates.

Again, I welcome our witnesses and I look forward to hearing about the implementation of this very important Act. Thank you, Mr. Chairman.

Mr. STEARNS. Now we look forward to hearing from the testimony of our witness list. Dr. Jeffrey Runge, Administrator of National Highway Traffic Safety Administration, Department of Transportation. Welcome. The Honorable John D. Graham, Administrator, Office of Information and Regulatory Affairs, Office of Management and Budget. I welcome you. And the Honorable Kenneth Mead, Inspector General, Department of Transportation, Office of Inspector General. Mr. Mead, we will welcome you.

Mr. Runge, we'll start with you for your opening statement.

STATEMENTS OF HON. JEFFREY W. RUNGE, ADMINISTRATOR, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION; HON. JOHN D. GRAHAM, ADMINISTRATOR, OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET; AND HON. KENNETH M. MEAD, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION, OFFICE OF INSPECTOR GENERAL

Mr. RUNGE. Thank you, Mr. Chairman and members of the subcommittee. I am Jeff Runge, the new Administrator of National Highway Traffic Safety Administration. I welcome the opportunity to report on where we are with implementation of the TREAD Act.

The TREAD Act, as you know, challenged NHTSA to do a lot of work. It required us to complete 15 separate rulemaking actions, 3 reports, 2 studies and 1 strategic plan. Many of those actions had tight deadlines, some as short as 30 days, but even so we are well on our way to accomplishing all the TREAD Act requirements.

First I want to report on the actions we have taken under the TREAD Act to improve our defects program and then I'll report on actions taken to improve our safety standards and regulations.

Within the defects program, the key TREAD Act provision gives us the authority to establish an Early Warning Reporting System. When the rule is final, motor vehicle and equipment manufacturers will be required to report a wide variety of information and relevant documents to us periodically.

In January 2001, we began gathering information about early warning with an advance notice of proposed rulemaking. We received numerous comments from many constituencies that needed to be considered and many were integrated into a notice of proposed rulemaking in December 2001. The NPRM proposed requiring all manufacturers of motor vehicles and equipment to submit information on the claims and notices they receive about deaths and injuries allegedly caused by defects in their products. Manufacturers of 500 or more vehicles annually and all child restraint and tire manufacturers would have to submit information about injuries and statistical data about consumer complaints, warranty claims, property damage claims and field reports. The NPRM's comment period closed just 3 weeks ago on February 4. We were complimented on our responsiveness to the early comments and expect to issue the final rule by the June 30, 2002 deadline.

The TREAD Act also requires manufacturers to notify us about safety recalls and similar campaigns in foreign countries. In October 2001, we issued the NPRM and the comment period ended in December. The TREAD Act set no deadline for this rule, but for

simplicity we plan to issue it at the same time as the early warning rule in June.

We're also working hard to restructure the process we use for defects investigation. The TREAD Act has enabled us to hire additional investigators, to double the number of screeners and to establish a single point of contact for much outside reporting.

One of Congress' primary concerns has been the Office of Defects Investigation's information, storage and management system. Through provisions of the TREAD Act, we are developing a new state-of-the-art data warehouse to process early warning information and to better manage ODI's data.

We have worked intensively thus far with the Volpe National Transportation Systems Center to ensure that this system will address our needs and we expect to have it online, on schedule and under budget by the end of this year. Throughout the past year, we have been in frequent contact with the DOT's Office of Inspector General, Ken Mead, regarding these issues.

Senator McCain asked the IG to analyze our investigation processes and to evaluate their effectiveness in identifying vehicle safety problems. We also looked to the IG to provide a review of the defects investigation process called for by the TREAD Act. After the IG's report was released in January, we reported on these matters to this committee and to the Senate committee on January 31. In brief, we concur with all of the recommendations in the IG's report. We have already implemented many of the recommendations, including the creation of a panel to formalize the review of the issues our screeners have identified as possible safety defects. We've also hired a contractor in response to the IG's recommendation for independent review of the development of the new data management system to augment our internal control processes.

On the tire issue, the TREAD Act directs us to conduct several actions to improve the safety of tires. Our NPRM to require a warning system to indicate when a tire is significantly under inflated was published on July 26, 2001. The NPRM drew extensive comments and we've sought to resolve the issues raised by the comments. We sent the final rule to OMB on December 18, 2001, and on February 12, OMB returned the rule for reconsideration, based on some concerns it had identified. We've been working together on agreement with OMB and expect to have that completed within a few days.

On the issue of tire endurance and resistance, we submitted an NPRM on performance improvements to OMB on December 17. OMB cleared the NPRM yesterday and it is up and available on the NHTSA website this morning.

On tire labeling, we issued the NPRM in December 2001 and the comment period closed on February 19. There were comments that noted worker safety hazards and we are evaluating those comments. In fact, I have plans to visit a tire plant myself, actually three tire plants in April. We expect to meet the June 1, 2002 deadline as well for this rulemaking.

The TREAD Act also requires us to take two other important regulatory actions concerning vehicle rollover and child restraints and Mr. Chairman, I see my light is red, so I have them in my written comments or I can continue, if you like.

Mr. STEARNS. Well, is it possible you can just summarize a little bit? I'll give you 30 to 40 seconds.

Mr. RUNGE. Thanks. On rollover, the TREAD Act directs us to develop a dynamic test by November 1 of this year and to conduct rulemaking to determine the best way to inform the public about our test results. Our request for comments, issued last July 3, described a number of driving maneuver tests from which we expect to select a test to compare the rollover resistance of motor vehicles. We expect to issue a second notice this spring describing our tentative choice of a test procedure. After considering the comments on this notice, we will issue a final notice in October 2002. That notice will describe the final test procedure along with an initial set of ratings on rollover resistance.

With respect to child restraints, TREAD Act directs us to consider many performance elements and testing requirements. We sent an NPRM on child safety performance to OMB for review and we will be reporting to Congress about some elements for which insufficient data exists. We expect to issue a final rule by November 1 of this year.

On the matter of labeling, our NPRM for labeling improvements was issued on October 29 and we expect to issue the final rule again by TREAD's November 1, 2002 deadline.

On the rating system to help purchasers compare restraint systems, we examined the rating systems developed by other countries and some organizations and we conducted our own performance testing. The request for comments was issued on October 29 and we expect to have this implemented by the November 2002 deadline.

Mr. Chairman, that concludes my oral testimony. You have my written testimony for the record.

[The prepared statement of Hon. Jeffrey W. Runge follows:]

PREPARED STATEMENT OF HON. JEFFREY W. RUNGE, ADMINISTRATOR, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Mr. Chairman, Members of the Subcommittee, thank you for the opportunity to speak about the National Highway Traffic Safety Administration's (NHTSA) implementation of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act.

The TREAD Act was enacted on November 1, 2000, as a direct consequence of hearings before the Committee on Energy and Commerce on the safety of Firestone tires and related matters. In the course of the hearings, the Committee determined that NHTSA could have detected the problems with the tires sooner if it had obtained reports about the tires' problems in a timelier manner.

The TREAD Act therefore contains provisions requiring vehicle and equipment manufacturers to report periodically to NHTSA on a wide variety of information that could indicate the existence of a potential safety defect and to advise NHTSA of foreign safety recalls and other safety campaigns. The Act increases civil penalties for violations of the vehicle safety law and provides criminal penalties for misleading the Secretary about safety defects that have caused death or injury. It authorizes the Secretary to require a manufacturer to accelerate its program for remedying a defect or noncompliance if there is a risk of serious injury or death, and requires that manufacturers must have a plan for reimbursing owners who incur the cost of a remedy before being notified by the manufacturer. It also prohibits the sale of motor vehicle equipment, including a tire, for installation on a motor vehicle if the equipment is the subject of a defect or noncompliance recall. In a remedy program involving tires, the manufacturer must include a plan that prevents replaced tires from being resold for use on motor vehicles. The Act also directs the Secretary to undertake a comprehensive review of the way in which NHTSA determines whether to open a defect or noncompliance investigation.

In addition, the TREAD Act directs the Secretary to conduct rulemaking actions to revise and update the Federal motor vehicle safety standards for tires, to improve labeling on tires, and to require a system in new motor vehicles that warns the operator when a tire is significantly underinflated. The Act also directs the Secretary to develop a dynamic rollover test for motor vehicles, to carry out a program of dynamic rollover tests, and to disseminate the results to the public.

An extensive provision on child restraints requires that the Secretary undertake a comprehensive review of the safety of child restraints, upgrade the safety standard for child restraints where appropriate, establish a rating system for child restraints, study the effectiveness of automobile booster seats for children, and establish a plan for saving lives and reducing injuries through the use of booster seats.

As this brief summary makes clear, the TREAD Act challenged us to do a lot of work. It requires us to complete 15 separate rulemaking actions, three reports, two studies, and one strategic plan. Many of the required actions had tight deadlines, some as short as 30 days. Some of these actions had not been on our agenda before the TREAD Act, so we had to accomplish the TREAD actions without compromising our work on other priority actions.

Thanks to the additional resources the TREAD Act gave us, we are well on our way to accomplishing all of the goals of the Act's requirements. First, I will report on the actions we are taking that relate to the defects investigation program, and then on our actions to amend and adopt safety standards and regulations.

Defects Investigation

On our actions to improve safety defect investigations, we have met all the rulemaking deadlines in the TREAD Act and are in the final stages of implementing other provisions that do not contain such deadlines.

Within the defects program, the key TREAD Act provision gives us the authority to issue a final rule that establishes an Early Warning Reporting System. When this rule is final, motor vehicle and motor vehicle equipment manufacturers would be required to report a wide variety of information and to submit relevant documents to us periodically. In the past, our decisions on whether to open defect investigations have primarily been based on complaints we receive from consumers. Our efforts to identify potential defects in a timely manner have been hampered by an inability to obtain relevant information in the possession of the manufacturers. Experience has shown that manufacturers often obtain information suggesting the existence of a safety-related problem months, and sometimes years, before consumer complaints to NHTSA indicate a potential problem.

In January 2001, we issued an advance notice of proposed rulemaking to begin implementing the early warning requirement. We followed this with a notice of proposed rulemaking (NPRM) in December 2001. The comment period for the NPRM closed on February 4, 2002. We are currently reviewing the over 50 comments received on the NPRM. We fully expect to issue our final rule by the June 30, 2002 deadline.

We have proposed to require all manufacturers of motor vehicles and motor vehicle equipment to submit information about claims and notices they receive about deaths and injuries that are allegedly due to defects in their products. Manufacturers of 500 or more vehicles annually and all child restraint and tire manufacturers would also have to submit, with minor exceptions, statistical data about consumer complaints, warranty claims, property damage claims, and field reports. We believe that these submissions will help us identify potential safety defects in a timely manner, without unduly burdening the manufacturers.

The TREAD Act requires manufacturers to notify the Secretary of safety recalls and similar campaigns in foreign countries. In October 2001, we issued a NPRM prescribing the contents of the notifications. The comment period on the NPRM ended in December 2001, and we are currently reviewing the 20 comments received on the NPRM. We have also issued final rules to implement the civil and criminal penalty provisions and NPRMs to implement the other defect-related provisions noted earlier. On all these matters, we expect to issue final rules within the next few months.

As we develop the early warning reporting requirements, we also are working hard to restructure the process we use for defects investigation. The TREAD Act has enabled us to hire additional investigators, doubled the numbers of screeners, and established a single point of contact for outside reporting. All of this information will be entered into the Office of Defects Investigation (ODI) database, where all screeners and investigators will have access to it.

To improve ODI's outdated information storage and management system and to handle the large volume of information that will be submitted under the early warning rule, we have contracted with the Volpe National Transportation Systems Cen-

ter (Volpe) to design and implement a new state-of-the-art data warehouse. We have worked intensively with Volpe and its subcontractors to ensure that this system will address our needs, and we expect to have it on-line, on schedule and under budget, by the end of this year. When the new system becomes operational, we believe it will enable us to manage and effectively utilize the early warning reporting data.

Throughout the past year, we have been in communication with the Department's Office of the Inspector General (OIG), which was asked by Senator McCain to analyze ODI's investigative processes and evaluate their effectiveness in identifying vehicle safety problems. As Secretary Mineta advised the Committee on January 31, 2002, we looked to the OIG to provide the comprehensive review of ODI's work that Section 15(a) of the TREAD Act directed us to conduct. After the OIG released its report on January 3, 2002, we completed our reporting requirement under Section 15 with a supplementary letter to the chairman and ranking member of the relevant House and Senate committees.

The Inspector General is here this morning to share his findings with you. But I want to state that we have concurred in all of the recommendations in his report and, in fact, have already implemented many of them, including the creation of a panel to review the issues our screeners have evaluated as possible safety defects. We have also hired a contractor, in response to the OIG's recommendation for an independent review of the project to develop the new data management system.

Mr. Chairman, I believe we are implementing the TREAD Act requirements in a way that will significantly improve our ability to detect safety defects on a timely basis.

Tire-related Regulatory Actions

The TREAD Act directs us to conduct several actions to improve the safety of tires, including rulemaking to improve the endurance and resistance standards for tires, to improve the information labels on tires, and to require a warning system to indicate to drivers when a tire is significantly underinflated.

We completed the testing and preparatory work and submitted an NPRM proposing several tire performance improvements to the Office of Management and Budget (OMB) on December 17, 2001. We received clearance from OMB on February 22, and we are now preparing the NPRM for issuance. Completing this rulemaking as quickly as possible is one of my highest priorities.

NHTSA issued an NPRM on tire information labeling in December 2001. The comment period closed on February 19, 2002. We are reviewing the comments on the NPRM and expect to meet the June 1, 2002 deadline for this rulemaking. The improved information resulting from this rule should make it easier for consumers to find and understand safety information about their tires.

The NPRM to require a warning system to indicate to vehicle operators when a tire is significantly underinflated was published on July 26, 2001. The NPRM drew extensive comments. We have sought to resolve the issues raised by the comments and devise a system that will meet the intent of the TREAD Act in a manner that best serves safety. In the belief that we had devised such a system, we sent a final rule to OMB on December 18, 2001. On February 12, 2002, OMB returned the rule to us for reconsideration based on concerns it had identified. When we received OMB's return letter, we immediately began examining the issues it raised. Completing this rulemaking as quickly as possible is one of my highest priorities.

Other Regulatory Actions

The TREAD Act also requires us to address two other aspects of motor vehicle safety. Section 12 of the Act requires us to develop a dynamic test of vehicle rollover by November 1, 2002, and to conduct rulemaking to determine how best to disseminate test results to the public. Section 14 of the Act contains several directives relating to the improvement of child restraint systems.

NHTSA issued a request for comments on dynamic rollover testing on July 3, 2001. In our notice, we described a number of driving maneuver tests from which we expect to select a test to used to compare the rollover resistance of motor vehicles. The notice discussed the strengths and weaknesses of the various tests, and explained our rationale for preferring a driving maneuver test to other types of dynamic tests, such as centrifuge tests. We are now completing our review of the issues raised by the comments and expect to issue a second notice this spring describing our tentative choice of a test procedure. After we consider the comments on this second notice, we plan to issue a final notice in the fall of 2002 describing the final test procedure along with an initial set of rollover resistance ratings.

Less than two weeks ago, NHTSA received the National Academy of Sciences' (NAS) report on dynamic testing for rollover resistance, as required by the DOT Appropriations Act for 2001 (P.L. 106-346). The report suggests that the agency con-

sider supplementing the static stability factor test for rollover consumer information with the results of dynamic rollover tests. The National Academy concluded that this broader look at rollover performance would give a more robust consumer-rating program. The report had other findings not related to dynamic rollover testing. We are currently reviewing all of the report's findings and we will provide our formal response.

Section 14 requires us to address several issues relating to child restraints, including improved restraint performance, better labeling, and a rating system to enable purchasers to compare restraints. Each of these issues was to be addressed in rulemaking actions that were to begin by November 1, 2001, and conclude by November 1, 2002.

We issued an NPRM on October 29, 2001, proposing better and simpler labeling for child restraints. The changes include requirements for molding some information into the restraint's shell to improve durability, for better placement of some labels, for a uniform font for all labels, for white labels with black text, and for color-coded installation information to distinguish forward-facing from rear-facing information. We anticipate issuing a final rule to improve labels before the November 1, 2002 deadline.

To develop a rating system for child restraints, we examined the existing rating systems that other countries and organizations have developed and conducted our own performance testing. In our request for comments issued on October 29, 2001, we stated that we had tentatively concluded that the best rating system is one that combines information about a restraint's ease of use with information about its dynamic performance obtained through higher-speed sled testing or in-vehicle testing through our existing New Car Assessment Program (NCAP). We are also considering using both higher-speed sled tests and NCAP tests. We are reviewing the comments we received and expect to implement the rating system by the November 1, 2002 deadline.

To upgrade the performance requirements of the Federal motor vehicle safety standard on child restraints, we had to examine a standard whose requirements have gone through continual review and significant change in the last several years. In an effort to make it easier to secure child restraints properly in motor vehicles, we recently upgraded the standard to require uniform attachment features and required light-duty motor vehicles to be equipped with anchorages that will accommodate these features. We will propose to require some of the performance elements listed in Section 14 in an NPRM. However, on several of the elements, for which there are uncertainties about the appropriateness of rulemaking, at least at this time, we will issue an advance notice of proposed rulemaking requesting comments. Section 14 requires us to submit a report to Congress if we decide not to incorporate any of the listed elements in a final rule. Before we can decide what should be included in a final rule, we must first obtain and carefully consider comments from the public.

Mr. Chairman, this concludes my overview of our actions to implement the TREAD Act. The Act has challenged us, but I believe that we are meeting the challenge and that our actions will improve safety on the nation's highways. I will be glad to answer any questions you may have.

Mr. STEARNS. I thank the gentleman.

Mr. Graham.

STATEMENT OF HON. JOHN D. GRAHAM

Mr. GRAHAM. Good morning, Mr. Chairman, and thank you, members of the committee, for the opportunity to be here. Let me introduce myself. I was a faculty member at the Harvard School of Public Health for about 17 years before joining the Bush Administration in the Office of Management and Budget. It turns out during that period I had the opportunity develop a great admiration of Dr. Runge's work in the field of trauma care and it was a wonderful surprise for me to learn that we were going to get to know each other a little better in a very different capacity. I look forward to the opportunity to work with him and we're already making some significant progress.

I'd also like to add that OMB supports the TREAD Act and we've been working very aggressively, as Dr. Runge indicated, for prompt

implementation of the TREAD Act. I would also like to note that my role at OMB given to me by the President is to assure that all significant regulations by agencies, including NHTSA, have sound science and economics behind them and that's the review role that we play for the President.

I would like to say a few things about the process of OMB review. First, we cover all significant regulatory actions that are designated as such under Executive Order 12866. We have a 90-day review period. I insist that my staff give a response to agencies within that 90-day review period. And in cases of a statutory deadline, which is quite relevant in the TREAD Act situation, we engage in expedited review of agency proposals. In my written testimony to you I have provided information on the promptness with which OMB has responded to NHTSA's request for OMB review. There are also cases of Court ordered deadlines and hopefully we won't get to that in the case of the TREAD Act, but in those situations we try to respond on the order of the days to help agencies meet the Court deadlines they face.

The outcomes of any OMB review are one of three possibilities. We clear the rule, the agency withdraws the rule, or we return the rule to the agency for reconsideration.

Since I was confirmed in September, I have returned 17 rules to various regulators throughout the Federal Government because of an inadequate scientific and economic basis for the conclusions that they have drawn. In five of those cases thus far, the agencies have improved their analysis, improved the rulemaking package, resubmitted it to OMB and it has been cleared. We expect those instances will happen more in the future.

Let me talk specifically about the tire pressure monitoring system rule. OMB recognizes not only the statutory mandate, but the good policy sense behind the idea of a tire pressure monitoring system rule. So there's no disagreement about whether there should be a rule. There are some technical issues that we're working out.

We also have an agreement for model years 2004 to 2006 that each vehicle that is manufactured and sold in this country should meet either a one-tire or a four-tire pressure monitoring standard.

The concerns we have raised in the return letter which we shared with the committee and in my written testimony are what we should be doing for model years 2007 and beyond. Should we decide that now or should we gather some additional data before we make that decision?

The concerns we have are as follows. First, we agree with NHTSA that the four-tire standard provides better tire-related safety than the one-tire standard. However, we assert that there is reason to believe that the one-tire standard may encourage more vehicles to be equipped with anti-lock braking systems and, while the evidence on the safety of anti-lock brakes is not definitive, there is suggestive evidence that those systems, in fact, reduce risk of death and injury to drivers, particularly drivers who learn how to use those systems properly.

Second of all, we have concerns that the benefits analysis which NHTSA has done may have some unsupported assumptions and some questionable data that we understand NHTSA is working on right now. In summary, we've been doing a rigorous review of the

tire pressure monitoring system rule. We did it very promptly under the circumstances and as Dr. Runge noted, we are very close to an agreement on that particular rule.

Thank you very much for the opportunity to be here today.

[The prepared statement of Hon. John D. Graham follows:]

PREPARED STATEMENT OF HON. JOHN D. GRAHAM, ADMINISTRATOR, OFFICE OF INFORMATION AND REGULATORY AFFAIRS, OFFICE OF MANAGEMENT AND BUDGET

Mr. Chairman, and Members of this Subcommittee, thank you for inviting me to this hearing. I am John D. Graham, Ph.D., Administrator of the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget. My testimony will (1) explain the role that OMB plays in reviewing proposed and final regulations under Executive Order (E.O.) 12866, (2) describe the role we have played in reviewing rules issued by NHTSA pursuant to the Transportation Recall Enhancement, Accountability and Documentation (TREAD) Act of 2000, and (3) explain why we recently asked NHTSA to reconsider a draft final rule on tire pressure monitoring systems (TPMSs).

I am especially pleased to testify at the same hearing as my Administration colleague Dr. Jeffrey Runge. For years I have been an admirer of Dr. Runge's work in the field of trauma care and I am convinced that he will prove to be one of the finest Administrators that NHTSA has had in the agency's 35-year history. I know how hard Dr. Runge and his staff are working to implement the ambitious provisions of the TREAD Act.

OMB fully supports the safety goals of the TREAD Act and is working with NHTSA to produce the best possible regulatory actions given the resource and statutory constraints. We appreciate that NHTSA has been working under tight statutory deadlines and, as a result, OMB has performed its review function in an expedited yet rigorous manner.

OMB'S REGULATORY REVIEW ROLE

Under E. O. 12866, OMB reviews all significant regulatory actions to ensure consistency with the principles of good regulatory analysis and policy. For those significant actions that cost the economy more than $100 million per year, such as the tire-pressure monitoring (TPMS) rule, E.O. 12866 requires the agency to perform a cost-benefit analysis that is reviewed by OMB.

At both the proposed and final stages of a major rulemaking, OMB is provided up to 90 days to review an agency's rulemaking package, which includes the draft rule, the cost-benefit analysis and any other supporting materials. During the 90-day review period, analysts at OMB scrutinize the agency's work and, in some cases, collaborate with the agency to improve the analysis and/or the draft rule. There are ultimately three possible outcomes of OMB review: (1) clearance for publication in the Federal Register, (2) withdrawal by the agency for further consideration, and (3) return by OMB to the agency for further consideration.

When a rule is returned to the agency, it is the practice of this Administration to prepare a formal return letter that is made available to the public as well as the agency. Since I was confirmed by the Senate in July of last year, I have signed 20 return letters about various draft regulations. In most cases, the reason for the return was an inadequate regulatory analysis. The public can review these letters on OMB's web site at www.whitehouse.gov/omb/inforeg/return—letter.html. In five of those cases so far, the agency improved the regulatory package and resubmitted it to OMB, which cleared it for publication in the Federal Register.

Each year OMB performs reviews of about 600 significant regulations, and about 60-80 are at OMB during any given month. During my tenure as OIRA Administrator, we have treated the 90-day review period as a performance indicator except in unusual circumstances (e.g., when the agency requests an extension of the review period). Agencies have a right to expect that OMB will perform rigorous yet timely reviews. The monthly number of OMB reviews that extend beyond 90 days has plummeted from an average of 25 in calendar year 2000 to close to zero in the last three months.

When an agency is facing statutory deadlines, such as those in the TREAD Act, we offer the agency expedited review and rarely consume the entire 90-day review period. When agencies are facing a court-ordered deadline, our reviews are even swifter. In some cases, we work informally with the agency to make sure that a regulatory package is in good shape before it is even formally submitted to OMB.

PACE OF OMB REVIEWS UNDER THE TREAD ACT

To date, OMB has conducted three formal reviews under the TREAD Act (including the draft final TPMS rule) under E.O. 12866. We have also reviewed another eight TREAD Act rules informally. Our average review time was 47 days for the formal reviews and 8 days for the informal reviews.

In the case of the TPMS rule, NHTSA submitted the draft final regulatory package to OMB on December 17, 2001. (The statutory deadline for issuance of the final rule was November 1, 2001). We returned the rule to NHTSA for reconsideration on February 12th and have worked diligently with NHTSA since that date.

TIRE PRESSURE MONITORING TECHNOLOGY

The TREAD Act requires NHTSA "to require a warning system in new motor vehicles to indicate to the operator when a tire is significantly underinflated." Currently, there are two different ways to measure tire pressure: the direct system and the indirect system.

The direct system has a battery-operated measuring device on each of the four tires and, as an optional feature, can provide a dashboard display of the inflation levels in each tire. This system is currently available only on certain high-priced models (e.g., the Lincoln Continental and the Lexus SC 430) and costs $66 per vehicle to install, plus a lifetime maintenance cost of $40.

The indirect system infers tire pressure by using information from a computer in the car's anti-lock braking system. The difference in rotational speeds between wheels is compared to infer tire pressure. For vehicles with anti-lock brakes, the indirect system is inexpensive ($13 per vehicle to install with negligible maintenance costs). A dashboard warning light indicates whether one of the tires is underinflated. The indirect system is currently installed on almost two million vehicles in the United States, including the Toyota Sienna and Ford Windstar.

Given current technology, it appears that both systems could meet a "1-tire" performance standard (i.e., the ability to detect 30% underinflation in one tire) while only the direct system could satisfy a performance standard that requires information on all 4 tires simultaneously.

THE ROLE OF ANTI-LOCK BRAKES

From a tire-safety perspective, NHTSA has valid reasons for considering a mandatory "4-tire" standard for the future. This approach would assure that consumers would be warned when any combination of tires (1, 2, 3 or all 4) is underinflated. The 1-tire standard will provide warnings when 1 tire is underinflated but will not necessarily detect situations when 2 or more tires are underinflated. A further weakness of the 1-tire standard is that consumers may misperceive that their tires are fine (since the warning light is off) when in fact all four of their tires are equally underinflated. The 4-tire standard overcomes these problems.

The tire-safety advantages of the 4-tire rule may not be decisive because the 1-tire standard encourages vehicle manufacturers to install anti-lock braking systems in vehicles that do not currently have them. The best available evidence, though not definitive, suggests that anti-lock brakes reduce fatal crashes by 4 to 9%. Since these reductions apply to all fatal crashes, not just tire-related crashes, the safety benefits of more anti-lock brakes could easily outweigh the extra tire-safety benefits of the 4-tire rule. About one-third of new vehicles sold today—primarily less expensive vehicles—are not equipped with anti-lock brakes. OMB's analysis indicates that retention of the 1-tire standard will encourage more consumer offerings of anti-lock brakes.

If a vehicle manufacturer is considering adding anti-lock brakes to vehicles that do not currently have them, the cost to consumers of purchasing anti-lock brakes will be smaller under a 1-tire standard than a 4-tire standard. NHTSA has estimated that adding anti-lock brakes costs an average of $240 per vehicle. The cost of a direct tire-monitoring system plus anti-lock brakes would be about $306 ($240+$66). The cost of an indirect system plus antilock brakes is about $253 ($240+$13). (Note that these comparisons ignore maintenance costs). Thus, the option of complying with an indirect system reduces the cost of adding anti-lock brakes by about $53 per vehicle ($306-$253), or by about 20%. The basic principles of economics suggest that these cost savings will induce more vehicles to be equipped with anti-lock brakes than would be equipped under a 4-tire standard. According to NHTSA, one large vehicle manufacturer intends to install anti-lock brakes in more vehicles if indirect TPMS are permitted.

Many of the indirect TPMS now on the road are very crude and will need to be improved to meet NHTSA's 1-tire standard. It is also likely that technological ad-

vances will permit indirect systems to detect moderate underinflation in 1, 2 or 3 tires. However, a purely indirect system cannot meet the 4-tire standard because the system works by sensing the differences in pressures between wheels.

OMB believes that a technology assessment should be conducted before making a final decision about whether the 1-tire standard should be retained or replaced by a 4-tire requirement. OMB has requested that NHTSA gather the following information: (1) an empirical study of actual tire pressure levels in vehicles with indirect systems and, if feasible, other types of TPMSs, (2) a cost analysis of alternative TPMSs that accounts for probable economies of scale of mass production, (3) an updated analysis of the sales of anti-lock brake systems and their safety impacts, and (4) an assessment of technological progress in development of improved TPMS. The results of these analyses could inform the decision as to whether a new rulemaking should be conducted for model years 2007 and beyond.

SHOULD ANTI-LOCK BRAKES BE REQUIRED?

Since OMB's analysis indicates that the safety benefits of anti-lock brakes may be substantial, it has been suggested that NHTSA should mandate anti-lock brakes in all new vehicles. This idea is worthy of consideration and would need to be addressed in a separate rulemaking. A good time to consider this option would be two years from now, when the real-world database on the safety benefits of anti-lock brakes may be large enough to draw definitive statistical conclusions.

Thank you for the opportunity to appear today.

Mr. STEARNS. I thank the gentleman.

Mr. Mead, for your opening statement.

STATEMENT OF HON. KENNETH M. MEAD

Mr. MEAD. Thank you, Mr. Chairman. I want to commend you on having this hearing. I think it's important for oversight committees to hold hearings from time to time on matters as important as this. In fact, the implementation of the TREAD Act requirements is on our list of the top 10 management challenges facing the Department. We have issued our report as is noted in my prepared statement. Our testimony mirrors that report. And I would have to say that overall, I think NHTSA has been very responsive to the recommendations and findings in that report.

I group our findings into three categories: first, completing the TREAD Act rulemaking. No. 2 is modifying the process that's used to make decisions and whether or not to open a defect investigation. And third is the information management system. It could well be that you have an excellent rule. All the manufacturers comply with that rule. And that you have volumes and volumes of data. You need a system that is fairly sophisticated to synthesize that information on something approaching a real time basis.

First, I'd like to cover the TREAD Act rulemakings. I think the early warning system rule is certainly one of the centerpieces of that legislation. NHTSA has stayed on track in issuing the notices of proposed rulemakings. That's quite different though from actually issuing the final rule. And in the case of the TREAD Act, the first three statutory due dates were missed by about 6 months. One that's now pending is the tire pressure monitoring rule, I think it was due out on November 1.

I ought to say that we did a review, a separate review a couple of years ago of the rulemaking process at DOT. We found that only about 10 percent of the statutory due dates for issuing regulations were met. The average cradle-to-grave time for a rule was about 4 years, 3.8 to be precise. Secretary Mineta is strongly committed to changing that process and certainly the TREAD Act offers a good test tube environment for doing that.

No doubt about it, Mr. Chairman, the heavy lifting on the rulemaking lies ahead. NHTSA has issued the notice of proposed rulemaking on the early warning system, and the due date for that is this summer. There are 12 final rulemakings required and six have statutory deadlines.

I believe the tire pressure monitoring rule shows the importance not only of meeting time lines, but ensuring the quality and substance of the rule. What's going on right now are discussions about the quality and substance of the rule and how best to resolve those issues. On the early warning rule, I expect that too will be controversial. The Alliance of Automobile Manufacturers has already weighed in on that and has expressed some reservations about how quickly it can be done and the resources required to implement the early warning requirement.

I'd like to move to a recommendation we had in our report on a peer review panel process. We found that one was needed to ensure consistency when opening investigations. What we saw at NHTSA is that if a complaint comes in it gets assigned to a screener and essentially that screener and one other person make the decision as to whether or not to open an investigation. Without going into details of individual cases, we found a number of instances where NHTSA really couldn't explain why they made a decision to open an investigation or not open an investigation. It's an incredibly subjective process to begin with. So we recommended that they create a panel of senior NHTSA people so they all come together, and make decisions as to whether or not an investigation should be opened.

Since we issued our report, 38 cases have appeared before this panel and in 34 of them NHTSA opened an investigation. We think a couple of steps still need to be taken. One is that if a screener decides that he or she will not recommend a potential defect for investigation, it falls into a hole and will not go before the panel. We think it should go before the panel at a certain point in time. We also think the panel, particularly on a negative decision, in other words, no recommendation that an investigation not go forward, ought to document its decision. So we have a trail to go back to and it's archived appropriately.

Finally, I'd like to say a word about the defect information management system which several of the members have alluded to. The TREAD Act will rise or fall on how good a system that is. Two factors currently hamper NHTSA's ability to successfully implement a new defect information management system. The first is the quality of data in the current defect data base. I think you probably know from your deliberations in passing the TREAD Act, that the ratio of complaints that a manufacturer gets to those that consumers notify NHTSA in about is extraordinarily disparate. In fact, in one case we found during our audit that the manufacturer received over 1400 complaints about a potential defect and when you look at the data base, there's 32 consumer complaints in there.

We also found instances where the data base contains inaccurate and incomplete data. The specific example had to do with complaints that came in about accidents where brakes failed and the air bag didn't deploy. Well, if it's not properly coded what shows up in the data base is failed air bags, and nothing about the

brakes. Or it could also be the converse. That's an illustration of the things that the new information management system will have to correct.

The second factor is the risks associated with developing a data base of this type. This is going to have to be a sophisticated data base. We found that the project is in danger of not meeting its timeframes and quality goals within budget. Actually, I'm not sure that a data base of this type can be done within the budget that NHTSA has estimated.

We audit the entire Department of Transportation and we see software intensive systems under development throughout the Department. You're probably familiar with some the FAA has undertaken and the track record there has not always been something to write home about. Software-intensive systems typically have overruns, both in schedule and budget. That's why we recommended here that NHTSA bring in an outside third party independent of the contractor to validate and verify the systems contractor's progress. NHTSA has said that they will do that and we're going to monitor the scope of the contract to make sure that that gets done properly.

Thank you.

[The prepared statement of Hon. Kenneth M. Mead follows:]

PREPARED STATEMENT OF HON. KENNETH M. MEAD, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION

Mr. Chairman and Members of the Subcommittee: We appreciate the opportunity to discuss the implementation of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act. We have identified the implementation of the TREAD Act as one of the 10 most important management challenges faced by the Department. Also, on January 3, 2002, we issued a report on the National Highway Traffic Safety Administration's (NHTSA) implementation of the TREAD Act.

Our report included several recommendations to ensure the timely completion of the Act's requirements and to improve the operations of NHTSA. Specifically, the recommendations focused on adhering to rulemaking deadlines, improving the process for identifying potential defects and opening investigations, improving the quantity and quality of data on potential defects, and mitigating the risks associated with developing a new defect information system.

In October 2000, Congress passed the TREAD Act to establish, in part, early warning reporting requirements for manufacturers so NHTSA is aware of potential defects as soon as possible. In its September 2000 hearings, Congress questioned why NHTSA, Firestone and Ford did not act sooner to prevent the 103 deaths and over 400 injuries associated with the defective tires. These numbers have since increased to over 200 deaths and 800 injuries. Congress found the following: (1) NHTSA had insufficient data regarding the problems with Firestone tires, and (2) NHTSA did not use data it already had to spot trends related to tire failures.

Since the Act was passed, NHTSA has made progress toward completing the TREAD Act requirements, but more work remains to achieve the goals of the Act.

• **First, completing the TREAD Act rulemakings, most importantly the early warning reporting requirements rule, in a timely and comprehensive manner.** NHTSA has already completed three final rulemakings including the rule requiring individuals to report to NHTSA the sale or lease of defective tires. NHTSA has been on track in issuing 9 notices of proposed rulemakings; but it still needs to complete 12 final rulemakings including 6 with statutory deadlines. One of the final rules, the tire pressure warning device rule, was due on November 1, 2001. However, the rule has yet to be issued. We understand that NHTSA and OMB are very close to resolving the issues associated with the proposed final rule.

Several other rules are also complex and controversial, and have statutory deadlines for completion on or before November 1, 2002. These rules include establishing early warning reporting requirements for vehicle and equipment manufacturers; updating the tire standards; and improving child safety restraints. The rules will be controversial because there are differing views among the affected parties and inter-

est groups on the substance of NHTSA's proposals. The status of the TREAD Act rulemakings and other actions are presented in Exhibits A, B, and C.

We noted that factors such as differing views on the substance of a proposed rule, requirements for cost/benefit analysis, and the need to have other entities, such as the Department and the Office of Management and Budget (OMB), review a proposed rule, influenced the time required to issue a rule. Further, in our July 2000 report on the Department's rulemaking process, we noted that the Department met only 10 percent of statutory deadlines and missed the statutory deadlines by an average of 3.8 years. However, Secretary Mineta has made the timely completion of rules a departmentwide priority.

Issuing the early warning final rule by June 30, 2002, will be a significant challenge for NHTSA. Significant disagreements are likely between NHTSA and automobile manufacturers over the scope and parameters of the reporting requirements in the proposed rule. Late last year, NHTSA issued its notice of proposed rulemaking specifying the early warning data that manufacturers will be required to report. As proposed, the rule requires manufacturers to report data quarterly starting in April 2003. The data include deaths, injuries, property damage claims, warranty claims, field reports, and consumer complaints related to potential defects in various systems or components, such as electrical systems and air bags. Also, by April 2003, manufacturers will be required to submit, on a one-time basis, 3 years of historical early warning data.

In commenting on the proposed rule, the Alliance of Automobile Manufacturers, an association of 13 domestic and foreign automobile manufacturers, stated that NHTSA "has substantially underestimated the burden imposed by the proposed rules, and the resources in terms of staff time, the cash outlays and the efforts that will be required to develop systems that can reliably generate the reports proposed in the Notice of Proposed Rulemaking." Further, the Alliance stated that "NHTSA also underestimated the lead time that will be needed to prepare the new systems before the automatic reports can begin."

A current example illustrating how differing views between interested parties over the substance of a proposed rule can contribute to delays in the time required to issue final rules is the draft tire pressure warning device final rule. On February 12, 2002, OMB returned the draft final rule to the Department for reconsideration. NHTSA's draft rule proposed a standard under which all new vehicles would require a tire pressure monitoring system. NHTSA proposed a phase-in period lasting until 2006 which generally allows for the use of a direct system or an indirect system. A direct tire pressure monitoring system has a tire pressure sensor in each tire. The sensors transmit pressure information to a receiver. According to NHTSA officials, a direct tire system would alert a driver when a tire or any combination of tires is underinflated.

In contrast, an indirect system does not actually measure tire pressure. Instead it relies on the wheel speed sensors in an antilock braking system to detect and compare differences in the rotational speed of a vehicle's wheels. Underinflated tires have smaller diameters and thus rotate faster. The indirect system relies on the anti-lock brake system which uses existing technology and is less costly than the direct system. However, according to NHTSA officials current indirect systems cannot detect when two tires on the same axle or two tires on the same side are equally underinflated.

After the conclusion of the phase-in period in 2006, NHTSA's approach would require a system that alerts the driver when the pressure in 1 to 4 tires is 25 percent below the recommended level. According to NHTSA officials, current indirect systems can only alert the driver when the tire pressure has fallen to 30 percent or more below the recommended level. To meet the standard proposed by NHTSA would require vehicle manufacturers to install a direct tire pressure monitoring system.

OMB requested that NTHSA provide a stronger analysis of the safety issues and benefits, including a formal analysis of a regulatory alternative that would permit indirect systems after the phase-in period. OMB stated that NHTSA could analyze an option that would defer a decision about the ultimate fate of indirect systems until the potential impact on installation of anti-lock brake systems is better understood. We understand that NHTSA and OMB are very close to resolving issues associated with the proposed final rule.

In January 2002, we recommended that NHTSA begin reporting to Congress on a routine basis the milestone dates, budget estimates, and actions required to complete the TREAD Act rules. In December 2001, NHTSA provided Congress with a TREAD Act follow-up report, as required by the Act. NHTSA told us that they will provide additional reports when specifically requested by Congress. *Given the heavy*

lifting that lies ahead for the TREAD Act rulemakings, NHTSA should begin reporting on a routine basis, the status of its rulemakings to Congress.

• **Second, a peer review panel process is needed to ensure consistency when opening investigations.** NHTSA agreed with our recommendation and has already begun using a peer review panel. We consider this a very positive step. The principal reason we recommended NHTSA establish a peer review panel and process is because we found instances where NHTSA did not open an investigation although the number of complaints, period of time, alleged defect, and potential consequences were similar to investigations that were previously opened. Further, the decision to open or not open an investigation was made by one or two persons, the basis for their decision was not readily apparent, and there was no documentation to support the decision. For example,

> Over a 4-month period, NHTSA received six complaints alleging airbags failed to deploy in a 1998 sedan after a frontal crash. All of the complaints noted injuries and one complaint stated the driver was seriously injured. An investigation was not opened, despite a recommendation by the defects analysis staff. Within 1 year the number of complaints quadrupled from 6 to 24 complaints, but NHTSA still did not open an investigation.
>
> In another example, NHTSA received three complaints over a 4-month period alleging front suspension torsion bar breakage in 1993-1994 minivans. This alleged defect could cause the driver to lose control of the vehicle and increase the risk of a crash. Although the defects analysis staff recommended an investigation; one was not opened. In contrast, NHTSA opened an investigation of three complaints received over a 1-year period alleging front suspension coil spring breakage in a different vehicle that could pose a potential compromise to the driver's ability to control the vehicle.

To ensure consistency and transparency in NHTSA's processes, we recommended the use of a peer review panel to discuss potential defects as a group, make decisions as to whether or not an investigation should be opened, and to document the decision. We recommended that the panel consist of the Chiefs of the Defects Analysis and Investigation Divisions, as well as defects analysis and investigative staff.

NHTSA agreed to implement this recommendation and we consider this a very positive step. We recognize that it is not possible to define criteria that will identify every potential defect. But a panel of experts drawing on the institutional knowledge of the staff and bringing management together to identify cases for investigation will ensure consistency in NHTSA's decision making process.

Since November 2001, NHTSA has held six peer review panel meetings. According to NHTSA officials, the use of the panels has increased the percent of investigations opened. Of the 38 cases of potential defects considered for investigation, the peer review panel approved the opening of 34 investigations.

Establishing a peer review panel is a significant step forward; however, it is not an end state. In addition to the steps already taken we recommend the NHTSA Administrator should ensure that (1) protocols for the panel process are written, (2) decisions are documented, and (3) the panel receives and reviews information when the defects analysis staff determine that an investigation should not be opened.

• **Third, developing a new defect information management system to replace the currently flawed system.** *This is important because the success of the TREAD Act will ultimately rise or fall on the quality and usefulness of the early warning data and the capacity of the new system to process the high volume of data.* Two factors currently hamper NHTSA's ability to successfully implement a new defect information system: (1) the quality of the data in the current defect database and (2) the risks associated with NHTSA's systems development efforts.

We reported that NHTSA's existing defect database, the primary tool it uses to identify potential safety-related defects in vehicles and equipment, significantly understates the number of potential safety defects. For example, NHTSA's database contains substantially less complaints than consumers make to manufacturers. In one case, we found that the manufacturer received 1,411 complaints regarding transmission failures resulting in the loss of fluid and increasing the risk of fire, while NHTSA received 32 complaints.

Further, the defect database contains incomplete and incorrectly recorded information regarding potential defects. For example, we found complaints in which consumers described problems with failed brakes that led to accidents where the airbags did not deploy. However, only the airbags and not the brakes were recorded as problems in the database.

The existing data in the defect database will serve as the foundation for the new information system. Therefore, it is particularly important that NHTSA review and edit the existing data in the defect database, including the descriptions of complaints, for accuracy and completeness before transferring the data to the new infor-

mation system. In response to our recommendation, the NHTSA Administrator stated that the data will be reviewed for improperly or inconsistently recorded data and corrected before being transferred to the new system.

We also reported that NHTSA's project with Volpe National Transportation Systems Center (Volpe) to replace its current database with a new information system by the fall 2002 was significantly at risk of not meeting quality, cost, and schedule goals. Historically, the Department's systems development projects, including those using commercial off-the-shelf software as a basis, have been plagued by cost overruns and implementation delays. While the Federal Aviation Administration (FAA) problems in developing software intensive systems are well known, the Department and NHTSA have experienced their share of problems with software development as well.

For example, DOT had incurred contract costs of at least $26 million to develop a new financial management system using commercial off-the-shelf software. However, 1 year after the original implementation date, the system was still not fully operating as intended. Also, the costs of NHTSA's National Advanced Driving Simulator, which involved software development, grew to almost twice the original estimate and the simulator was completed 3 years later than originally estimated.

NHTSA describes its new information system efforts as an acquisition of commercial off-the-shelf software. However, the software will require modifications and involve systems development work. The National Institute of Standards and Technology outlines procedures to ensure that software development efforts are successful. One of these procedures includes having an independent third party validate and verify that the system will meet the user's needs. *We recommended that NHTSA obtain the services of an independent third party to assess the contractor's progress, reduce development risk, and advise NHTSA of its findings.*

In response to our recommendations to ensure that the new defect information system is completed on time and within budget, NHTSA recently hired a third party contractor to validate and verify that the new system will meet its needs and reduce development risk. The contractor will provide NHTSA with weekly status reports and monthly assessment reports. *We will monitor the contractor's findings and the corrective actions taken by NHTSA.*

This concludes my statement. I would be pleased to answer any questions.

EXHIBIT A

TREAD Act Completed Rulemakings—As of February 12, 2002

TREAD Act Section	Purpose	Statutory Deadline	Action to Date
Sale or Lease of Defective Tires.	Requires individuals to report to the Secretary when knowingly and willfully selling or leasing for use on a vehicle a defective or noncompliant tire when having actual knowledge that the manufacturer has notified dealers of such defect or noncompliance.	01/29/01	**Completed:** Final Rule issued 07/23/01.
Safe Harbor	Precludes individuals from receiving criminal punishment if the person (1) at the time of the violation, did not know that the violation would cause death or serious injury and (2) corrects the improper report or failure to report within a reasonable time. The Secretary shall establish by regulation what constitutes reasonable time and sufficient correction.	01/29/01	**Completed:** Final Rule issued 07/24/01.
Civil Penalties	Amends the regulations to reflect changes in the National Traffic and Motor Vehicle Safety Act regarding civil penalties.	None	**Completed:** Final Rule issued 11/14/00.

EXHIBIT B

TREAD Act Rulemakings to Be Completed—As of February 12, 2002

TREAD Act Section	Purpose	Statutory Deadline	Action to Date
Early Warning	Requires manufacturers to report claims data, warranty data, customer satisfaction campaigns and recalls, and any incidents of serious injuries or fatalities (allegedly or proven to be caused by a possible defect in systems or components) for which the manufacturer receives actual notice.	06/30/02	Notice of Proposed Rulemaking (NPRM) issued 12/21/01.
Tire Pressure Warning Device.	Requires a warning system in new vehicles to indicate to the driver when a tire is significantly underinflated. Requirement becomes effective 2 years after the completion of the rulemaking.	11/01/01	NPRM issued 07/26/01. OMB returned final draft rule to NHTSA for reconsideration on 02/12/02.
Tire Standards	Requires the Secretary to update the tire standards (Standards 109 and 119).	06/01/02	NPRM sent to OMB on 12/14/01.
Improved Tire Information.	Requires the Secretary to improve the labeling of tires to assist consumers in identifying tires that may be subject to a recall.	06/01/02	NPRM issued 12/19/01.
Safety of Child Restraints.	Requires the Secretary to draft regulations for improving the safety of child restraints, including minimizing head injuries from side impact collisions. The Secretary must consider several criteria, therefore resulting in multiple rulemakings.	11/01/02	NPRM sent to Office of the Secretary (OST) on 12/03/01.
Ratings Program	Requires the Secretary to establish by regulation a child restraint safety rating consumer information program.	11/01/02	NPRM issued 11/06/01.
Report on Defects in Foreign Countries.	Requires manufacturers to report within 5 working days when conducting a safety recall or other safety campaign in a foreign country for an identical or substantially similar vehicle as a vehicle offered for sale in the United States.	None	NPRM issued 10/11/01.
Acceleration of Remedy.	Permits the Secretary to require manufacturers to accelerate the remedy program if the Secretary finds that there is a risk of serious injury or death and that the acceleration can be reasonably achieved by expanding the sources of replacement parts, authorized repair facilities, or both.	None	NPRM issued on 12/11/01.
Reimbursement Prior to Recall.	Requires manufacturers to include in their remedy programs a plan for reimbursing owners who incurred the cost of the remedy within a reasonable time in advance of the manufacturers' notification of recalls. The Secretary may establish by regulation what constitutes a reasonable time and other reasonable conditions for the reimbursement plan.	None	NPRM issued on 12/11/01.
Sale of Replaced Tires.	Requires manufacturers to include in remedy programs a plan for how manufacturers will prevent replaced tires from being resold and how to limit disposal of replaced tires in landfills. Manufacturer will include information about the implementation of the plan in each quarterly report to the Secretary.	None	NPRM issued on 12/18/01.
Sale of Replaced Equipment.	Prohibits the sale or lease of any vehicle equipment (including tires) for installation on vehicles when the equipment is subject to a recall. An exception exists if the defect or noncompliance is remedied before delivery.	None	NPRM issued 07/23/01.
Certification Label	Requires intermediate or final stage manufacturers, for vehicles built in more than one stage, to certify that they complied with specifications provided by the first manufacturers or that they have elected to assume responsibility for complying with the Federal Motor Vehicle Safety Standards.	None	Drafting Rulemaking Support Paper.

EXHIBIT C

TREAD Act Non-Rulemaking Actions—As of February 12, 2002

TREAD Act Section	Purpose	Statutory Deadline	Action to Date
Insurance Study	Requires the Secretary to determine the capability and benefits of obtaining aggregate information regarding insurance claims.	03/01/01	**Completed:** Report issued on 03/05/01.
Follow-Up Report	Requires the Secretary to report to Congress on the implementation of the TREAD Act and provide recommendations for additional amendments.	11/01/01	**Completed:** Transmitted to Congress 12/14/01.
Recall Criteria	Requires the Secretary to review and update all standards, criteria, procedures, and methods for determining whether to open a defect or noncompliance investigation. The Secretary shall report findings to Congress.	11/01/01	**Completed:** Transmitted to Congress 01/31/02.
Education Program ...	Requires the Secretary to develop a 5-year strategic plan to reduce deaths and injuries, caused by failure to use booster seats, by 25% among 4 to 8 year olds.	11/01/01	Draft plan to OST on 02/04/02.
Booster Seat Study ...	Requires the Secretary to study the use and effectiveness of booster seats and submit the results to Congress.	11/01/01	Draft report within NHTSA.
Rollover Tests Rating Program.	Requires the development of a dynamic test on rollovers by 11/01/02 and creation of a consumer information program. The Secretary shall conduct a rulemaking to determine how best to disseminate the test results.	11/01/02	Request for Comments published on 07/03/01.

Mr. STEARNS. I thank the gentleman.

Let me start with questions. For legislators who are involved with the testimony which we used to develop the TREAD Act and then when we had the mark-up and it went to full committee and then to the House floor and the Senate and finally passed, everybody thinks something is going to happen immediately. And I think constituents, as well as the public feel that there will be answers and there will be lives saved, but it's all dependent, as you mention, Mr. Mead, this TREAD Act is going to rise and fall on this data base and how the criteria is set up so that we can accurately come up with an implementation to prevent these problems.

One of the things we all talked about with this tire pressure monitoring system and Dr. Runge, we are aware that NHTSA and OMB have had a difference of opinion in the direction of this tire pressure monitoring system rule, but continue to discuss this issue. I think the first question I would have is what is the status of this on-going discussion because for many of us this would be helpful and we could save lives if we had this implemented and show the public how to use it.

Mr. RUNGE. Thank you, Mr. Chairman. Let me point out, first of all, that this is a late one and we are very sensitive to that. I also wanted to point out that OMB has been working very diligently with us and in fact, very quickly, to my surprise, on all of our TREAD rules.

Indeed, there has been a great level of discussion and some debate between NHTSA and OMB, but I want to point out that this is a normal part of the decisionmaking process that certainly is not unique to us or unique to this Administration. It's been going on for a long time. And that discourse, I believe, leads to truth. Certainly, we have no corner on the market on brains and neither do they. Working together, we can finally achieve what will be a great

rule to implement for the American people which will have safety as its No. 1 priority.

So the goal of this process is to develop those policies that have a balanced perspective and the final result will be consensus. So we have over the course of a few months reached a general agreement.

Mr. STEARNS. So you now have produced an agreement between you and OMB?

Mr. RUNGE. We have some details to work out. The lawyers, in fact, are working on it. Dr. Graham and I have had numerous discussions on this. We both have an academic background. We enjoy the exchange of ideas and we believe that we do have a substantive agreement.

Mr. STEARNS. Is there a date when you can say you'll have a final date when this will be obtained?

Mr. RUNGE. I'm hesitant to give you a final date because that's out of my hands. We met with our attorneys last night who are talking about how to structure it. In fact, as Dr. Graham told you earlier, it will be a rule in which we have a phase-in period which allows either system and then a gathering of additional data to decide what to do.

Mr. STEARNS. Let's say the year 2004, will the tire pressure monitoring system be in place by the year 2004?

Mr. RUNGE. The year 2004 is when the phase-in would begin.

Mr. STEARNS. Would begin.

Mr. RUNGE. Yes.

Mr. STEARNS. And it will be complete 2000 when?

Mr. RUNGE. We got comments on the docket from the equipment manufacturers saying that it would be virtually impossible for them to ramp up production within the 2-year timeframe. So we talked to the manufacturers, talked to the equipment manufacturers and have come up with a 3-year interim period in which they will be phasing in——

Mr. STEARNS. The problem for many of us are these type of discussions that OMB and the Inspector General, you have, go on and on and on and yet I think the public and we as legislators expect this to be implemented in less than a decade, in less than 4 or 5 years. Most of these automotive companies probably could implement this thing immediately.

Have you ever had a workshop or has it ever been suggested that you sit down with all the manufacturers both on the automobile side and the part side and have a big technical workshop to explore these issues and how to implement them quickly and then this information be brought back to the Inspector General and OMB and say this is what industry can do right now. Let's get on it and let's do it, instead of the government agencies continuing to discuss and negotiate and go back and forth and look at the data. Maybe industry can have an input. So my question is, has there been a technical workshop and if not, do you think that's a good idea?

Mr. RUNGE. I will say that our staff has gotten lots and lots and lots of input on all sides of this issue, both formally and informally. And I believe that we are very knowledgeable at this point about what the capabilities of industry are to ramp up production and in fact, to install either type of monitor, either the 1-tire or the 4-tire standard.

Mr. STEARNS. Mr. Mead had mentioned this information system. Perhaps industry could help you interpret this data and could say to you okay, this is important, this is not important and could expedite streamline your interpretation analysis of this. So I think bringing in the industry into this mix and having them discuss with you in a technical workshop would be a great idea, not just for their ideas in implementing, but also how to get this data base that Mr. Mead had talked about so that it's meaningful because as I mentioned in my opening statement, we're going to have data pouring into you and unless you have the people, the time, the materials and the credibility and criteria, nothing is going to happen. We'll be negotiating here for a decade on this stuff because if there's a slip today, and there's a slip tomorrow, this slip will go for 10 years. And here we pass this bill and then 5, 6, 10 years later, we're still talking about a phase in.

Mr. Mead?

Mr. MEAD. Can I reinforce one element of what you said? We found in our audit on this information system that one of the areas of shortfall were the interfaces that NHTSA was going to have with the manufacturers information system. They have to talk to each other.

Mr. STEARNS. So right now they're not compatible?

Mr. MEAD. No. In fact, we're not sure what NHTSA's system is going to look like, so it's very timely to start developing this interface for the information management system.

Mr. STEARNS. Mr. Runge, just before I finish, is there anything you'd like to add?

Mr. RUNGE. Well, yes. In fact, if I could sort of frame out the estimated finish date for some of these things. Keep in mind that the final rule is not complete yet and the comment period is closed. We have a lot of comments. We actually have more comments for the advance notice of proposed rulemaking. These comments will be incorporated; and by the way, this is a very transparent process. Industry has lots and lots of input into this as well. Many people in this room have weighed in heavily on this issue. When the rule is finished, we plan to have the data system completed during this summer and during that time we plan technical workshops with the IT people in industry to make sure that they are constructing their systems so that they can get the proper amount and type of data into our data system. So we are fully aware of the need to integrate technology. Believe me, the last thing we want is a vanload of paper backing up to the back door of the DOT building. We are keenly aware of the need to make this as easy as possible for us to accumulate and analyze the data. Mr. Mead's zeal about this issue has been infectious and I've caught the disease. I promise you and the rest of the subcommittee that we will be on top of this to the max.

Mr. STEARNS. Okay. My time has expired. The gentle lady from Colorado, Ms. DeGette.

Ms. DEGETTE. Thank you, Mr. Chairman. Well, I think everybody agrees that the TREAD Act is going to, as Mr. Mead said, rise and fall on the quality and usefulness of the new information system and ODI's ability to identify potential defects. And he said that today in his testimony and also in his report. But then the Inspec-

tor General went on to say that "to be fully operational by fall 2002 is at risk because of poor project planning and management." And furthermore he said that NHTSA can't identify safety defects in a timely manner because it has an unstructured approach for analyzing data and determining if a potential defect exists and where there's further investigation.

So I want to ask a few questions about this information management system because I think this is the pressure point for the whole success of the TREAD Act.

First of all, Dr. Runge, the Inspector General reports that less than 10 percent of the complaints made by consumers to manufacturers are contained in the current ODI data base. Is that correct?

Mr. RUNGE. I certainly can't dispute that.

Ms. DEGETTE. So you think it would be correct?

Mr. RUNGE. One of these guys probably knows the exact percentage, but I would say that's——

Ms. DEGETTE. The Inspector General also found that the current database often "contains incomplete and incorrectly reported information regarding potential defects." Do you agree with that assessment?

Mr. RUNGE. Well, keep in mind that this was part of the purpose of the TREAD Act.

Ms. DEGETTE. Right. So you would agree that it does contain this kind of information?

Mr. RUNGE. Sure.

Ms. DEGETTE. Thank you. Is it fair to say that the old system is probably inadequate and doesn't work properly?

Mr. RUNGE. I think the new system will be lots and lots better than the old system.

Ms. DEGETTE. Yes or no, do you think that the old system works properly?

Mr. RUNGE. I think the old system works fairly well, actually.

Ms. DEGETTE. You do? Okay. So what's the rush then, in your mind, for the new system?

Mr. RUNGE. It will be better.

Ms. DEGETTE. Okay.

Mr. STEARNS. Mr. Runge, could you just move the microphone a little closer to you?

Mr. RUNGE. Sure.

Ms. DEGETTE. Now when ODI is in full compliance with the Act, 100 percent of consumer complaints will be collected by a new information management system. Is that right? That's the new system you're talking about?

Mr. RUNGE. That's the goal.

Ms. DEGETTE. Now, the new ODI information system, according to the Inspector General, is projected to only cost $5 million to be paid out over the next 3 years and will consist of commercial off-the-shelf software, correct?

Mr. RUNGE. The architecture will be off-the-shelf.

Ms. DEGETTE. And the software will be off-the-shelf, right?

Mr. RUNGE. The software is being designed by a subcontractor of Volpe, right now.

Ms. DEGETTE. In fact, what we've heard on the committee is that the new system is going to be Excel spreadsheet software. Is that correct?

Mr. RUNGE. I'm not sure which architecture it is, whether it's Excel or another spreadsheet——

Ms. DEGETTE. So you don't know.

Mr. RUNGE. That's correct.

Ms. DEGETTE. Can you find out for me and let us know?

Mr. RUNGE. Sure.

Ms. DEGETTE. Great. Now do you think that the proposed system is going to be adequate to serve its function?

Mr. RUNGE. We have three layers of oversight in this thing. I have not personally asked for the software design, nor would I know what to do with it if I saw it. Yes, the commitment to you guys is is that this will be adequate to do the job.

Ms. DEGETTE. And you think $5 million is going to be sufficient to pay for that?

Mr. RUNGE. We have a contractor who is currently working under budget and believes they can get it accomplished.

Ms. DEGETTE. Is part of your contractor's function to ensure that the data will be secure?

Mr. RUNGE. Yes, security is an issue.

Ms. DEGETTE. How big of an issue is it?

Mr. RUNGE. I can't answer that now. I'll be happy to answer these technical questions later.

Ms. DEGETTE. That would be great. Mr. Mead, what do you think about the proposed information management system? Do you think the funding of this system, the design of the system and the security are going to be adequate? Do you think $5 million is going to be enough to finance it?

Mr. MEAD. No.

Ms. DEGETTE. Could you please explain why?

Mr. MEAD. As I was saying in my oral statement, we audit information management systems throughout the Department. For those that are being developed, people often say this system is off-the-shelf. I have yet to see a system that is designated as off-the-shelf as really being off-the-shelf. People think off-the-shelf means that you go out and you buy the software, you install it, and then you can use it. This system is going to require substantial refinement and revisions.

Ms. DEGETTE. And in fact, that's what Dr. Runge is saying too. It's not really off-the-shelf.

Mr. MEAD. No, it isn't. And software contracts are typically cost plus which means that you pay depending upon how much software development is involved. And they're rarely fixed price and this one is not fixed price either.

Ms. DEGETTE. $5 million is not the fixed price?

Mr. MEAD. I would be very impressed if it comes in at $5 million.

Ms. DEGETTE. Why don't you think that what they're talking about would be adequate, if you can zero in on that?

Mr. MEAD. Because I think this system is going to get disparate data input from multiple sources and that it's going to have to have some collocating or synthesizing abilities. In other words, the computer is going to have to operate something like a brain to pull all

this information together so the right person in NHTSA when they pump an inquiry about a particular model, can get all the information about that model and they can get it on a real time basis. This is not like a program that you can construct at home. That is why we feel that it is so important to have a third party come in who has software expertise and advise Dr. Runge of how well the Volpe Center and their subcontractor is performing and also recommend to Dr. Runge midcourse corrections. NHTSA really does not have software development expertise.

Ms. DEGETTE. Dr. Runge, do you have—let me just ask one more question, if you don't mind, Mr. Chairman. Do you have any objection to that third party advisor coming in and helping you develop the system?

Mr. RUNGE. Absolutely not. We have a third party who is looking at the overall time lines to make sure. We just contracted with them to make sure that the project is on time and is paying attention to what Volpe is doing.

Ms. DEGETTE. We need a third party——

Mr. STEARNS. The lady's time has expired. The gentleman from Michigan is recognized.

Mr. UPTON. Well, thank you. Thank you, again, Mr. Chairman, for having this oversight hearing and appreciate the testimony and I know we've had a couple of discussions in particular with regard to the tire pressure monitoring system. And I just want to underscore the importance of getting that done and beginning to see a rule implemented and I appreciate your understanding of that issue and just want to underscore again the thought that this was the intent of the Congress, that we work very closely with industry. I note that on a number of higher priced models that are available today, that there is a system that's available. Frankly, I think we can improve on what they have in place and I'm delighted that sound science is going to take the underlying role here by getting an agreement and working together. I know that the American consumers are going to benefit in a major, major way so that all of us will know when our tires are under pressurized and I just want to thank you for what you're doing to make sure that we get this implemented as fast as we can and that that science will rule the day and begin to see the type of system installed, perhaps earlier than what date you actually set, putting more gas on the fire to get it done. I appreciate the chairman's work on this and if you want to comment further, I guess you had some discussions last week. And I had to step out momentarily, but do you think that we'll have some idea in the next couple of months, next couple of weeks or early summer? When do you think we're going to see the right flags flying?

Mr. RUNGE. I think we're close enough that we can say it will be a week or 2.

Mr. UPTON. Terrific. Mr. Graham, do you agree with that as well? I want to thank you also on your picture on CQ. I thought it was—I get it at my home now since we still don't have office deliveries here.

Mr. GRAHAM. We must have good timing with your hearing coming up.

Mr. UPTON. That's right.

Mr. GRAHAM. I think that Dr. Runge and I are in conceptual agreement on the contours of the tire pressure monitoring rule and now it is for the lawyers, frankly, to actually put it into the words and I don't think that's going to be too long.

Mr. UPTON. Have you had also some constructive input from both the tire manufacturers as well as the industry itself, the auto industry itself in terms of what they think is do-able?

Mr. GRAHAM. Yes sir, I have. Both sides.

Mr. UPTON. Good. Well, I just applaud you on that work and look forward to getting it done and obviously I know this subcommittee will continue to oversee what's going on and appreciate your willingness to appear here this morning.

Thank you.

Mr. UPTON. Thank you, sir.

Mr. STEARNS. I thank the gentleman. The gentleman from Tennessee, Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman. The proposed rule on tire labeling envisions placing a tire identification number of both sides of the tire as has been mentioned earlier today. I'm concerned that this does not take into account the realities of the tire business. It's my understanding this will pose a safety hazard to workers in these tire plants and create a significant redesign of the current method of tire production with hundreds of millions of dollars being passed on to consumers.

In order for the tire identification number to be placed on both sides of the tire, the mold press would need to be changed midway through the production process, a practice that would require a worker to insert himself or herself within the mold which will be extremely hot, 300 degrees or more. Alternately, the entire line would need to be shut down for a number of hours, until the mold could be changed, thereby losing hours of valuable production. This may actually even delay getting better labeling on the tires as it takes more time to completely rehaul the manufacturing process.

So Dr. Runge, I guess my question is, the date stamp in question here, what about the idea that the date stamp be left on one side of the tire, while the other markings, like the type of the tire, where it was made, be placed on both sides and also what about the possibility this information could be replicated on the tire warranty brochure?

Mr. RUNGE. Congressman Gordon, I'm sure we'll be happy to consider that. The making of tires is sort of new to this doctor and I have planned to actually go to two auto tire plants and one truck tire plant in April. This concern has been expressed to me by people who understand the processes and the last thing we want to do is compromise the safety of workers.

As I understand the motive for this rule in the first place, it has been difficult when a tire recall occurs for a consumer to find the number that would identify the tire necessary for the recall. If there are other motives—there may be other motives, but that's the primary one that I recall hearing from staff.

We will listen to all comments. The comment period closed on the 19th of February. I have not seen the comments. Mr. Kratzke, I'm sure, has. And this has been expressed to me personally by people from the industry and we'll be very sensitive to that.

Mr. GORDON. I think the most important information is what type of tire and where it's produced and the additional cost and the safety hazard of having to weekly change both sides on terms of the labeling of the date. Once you have a chance and I commend you for going out and taking a real world look at this, I think it might then give you a better idea.

A lot has been talked also about today about the tire pressure. And it's my understanding or my concern that this proposed rule on indirect tire pressure monitoring which I understand is less accurate than the direct monitoring system may not give drivers adequate warning regarding tire inflation.

Is it necessary to ensure that the tire inflation pressure is sufficient to carry maximum load? I'd like Mr. Graham and/or Dr. Graham or Dr. Runge to maybe address this indirect versus the direct monitoring.

Mr. GRAHAM. Yes, I think your point is, as we understand it, technically correct, that the direct system that is in a couple of the high-priced models mentioned previously does have more accuracy and precision in providing information for consumers on tire pressure than the existing indirect systems now out on the road. And I think that's one of the areas where Dr. Runge and I are in agreement.

Mr. GORDON. So what is the thought process? Is it determining is it a cost matter or what? If it's a better system, what would be your rationale for not going with a better system?

Mr. GRAHAM. As OMB has explained in the return letter from a tire safety perspective, the direct system is a superior system. On the other hand, the one-tire rule would allow the indirect system, which has the benefit of encouraging the vehicle makers that don't currently offer anti-lock brakes to offer them in the future. And as a consequence of that, there is an offsetting safety advantage of the one-tire system. So the approach that we're taking is to work on this for a couple more years in terms of the information collection before we make a final decision on whether to go with a 4-tire or a 1-tire standard.

Mr. RUNGE. If we consider this holistically also, please keep in mind that we are proposing rulemaking for tire upgrade. Since it's on our website now, I can tell you what's in the NPRM and one of the things we're recommending or we are proposing is that tires be tested at an under inflation-level consistent with what we see in real world data, so that if, in fact, this rule comes into place, tires will be safer even at lesser inflation. So we're trying to consider this holistically with the idea that ABS brakes may turn out to be a beneficial, even though real-world data has not yet shown that to be true. We believe that they are because they stop quicker and so forth. So we're in harmony here.

Mr. GORDON. Thank you.

Mr. STEARNS. I thank the gentleman. Mr. Pitts is recognized.

Mr. PITTS. Thank you, Mr. Chairman. Sorry I'm late. I had other meetings. You may have covered this, Dr. Runge, the early warning system. How are you planning to use the early warning data that you will be receiving?

Mr. RUNGE. If I could just back up a second and talk to you about the process that we have. There's been some mention made

that we don't have a methodology for looking at complaints, and that's the farthest thing from the truth. We have a formal process that involves eight screeners and an office director and a panel to look at the various sorts of data from consumer complaints, from reports from industry, insurance company reports and the like. And they decide when the number of complaints rises to the level of an initial evaluation.

Now the difficulty with that right now is that there is a haystack of information arriving and we are constantly trying to find the needle. What we look forward to with the early warning rule is some help from technology. There are computer systems in existence that can help perform that type of surveillance. They can find the needles a lot easier than an individual screener can find them. So when we have access to all of the data that we are proposing in the NPRM for the early warning rule, in a systematized fashion that will be electronic and not paper, and in concert with the industry, we do believe that it will be possible to pick up problems sooner, before they rise to the level of a huge defect involving thousands or millions of vehicles or tires or anything else. So there will still be a subjective element to this when the data arrive, but very clearly, we'll have the ability to detect those problems before they really get out of hand.

Mr. PITTS. Can you comment on the challenges that NHTSA faces in creating and implementing a dynamic rollover test?

Mr. RUNGE. Yes sir, thank you. Let me just say at the outset that as a physician who has treated numerous, numerous crash injuries over the last couple of decades, rollover crashes are the worst. They predict to us physicians that we need to look and look and look and make sure that nothing is wrong because the injuries are often not overtly severe, but are occult in nature. Having said that, rollover is one of my very top priorities as Administrator of NHTSA. Right now, rollovers, even though they represent only about 4 percent of crashes, are responsible for almost one-third of occupant fatalities. So we have a problem. I will pledge to you that we will be tackling rollover from a multi-faceted point of view.

With respect to the standard, I think that the subcommittee may have had access to the NAS report that came out a couple of weeks ago. One of the things that I was delighted to see is that the static stability factor tracks extremely closely with real world crashes, so we already have an excellent way to rate vehicles with respect to their propensity to roll over.

Now the NAS report also said that a dynamic test could offer additional benefits, so we are actively pursuing that in compliance with the TREAD Act.

There are many opinions about how this should be done. There are robotics methods. There are driver methods that are much more subjective. There are J-turns and S-turns and there are probably many other alphabetical terms out there. So NHTSA's objective is to evaluate all of these and then narrow them down and then select the one in time for the final rulemaking that becomes part of our rating system and will be published.

I am also concerned on this part of TREAD that we need to get this information out to the broader public. We have it on our website. We market it through printed materials. We would love it

if everyone would visit our website before they purchase a car, but that's probably not practical. So in addition to coming up with a dynamic standard and our static standard which you know does track the real world very well, we will intensively market our findings once those occur.

Mr. PITTS. Thank you. I see my time is up.

Mr. STEARNS. Thank the gentleman. The gentleman from Massachusetts, Mr. Markey.

Mr. MARKEY. Thank you, thank you, Mr. Chairman, very much. Dr. Runge, it's good to have a physician here today. I've been on Contact for 4 days. Do you think I should move to the Z-pack? I can't shake this thing.

Mr. RUNGE. Only insofar as antibiotics do not help with viruses, Mr. Congressman, I think you're probably fine.

Mr. MARKEY. I am the author of this direct/indirect ABS provision, so I'm going to try to help you with congressional intent here, if it's relevant over to 1B, especially. And I can understand the balancing that you're trying to engage in, but it's my understanding that this ABS, the antilock brake system indirect protection works dealing with kind of the rotational speed of the wheel. And if there's only one tire that's underinflated, it works very well. But if there's two that are underinflated, then it might not detect it because it might look as though to the device that there is a perfect rotation, that these wheels are still engaging it. So it wouldn't give you a warning.

My own personal experience is that when I go into a gas station and we're all a little bit, in general, behind the curve in terms of how frequently we go over to that air pump to check it out, it's just kind of human nature, like going to the doctor. You always try to delay an extra day or two, maybe it will clear up. So you don't do it as frequently as you should, that you often find them fine after you put the air in the tire you thought had a problem and then you walk around and go oh yeah, look at the other one over there too. I better do the other one as well. Now does that happen 25 percent of the time or 50 percent of the time? It's a pretty high percentage of the time. You do another tire as well.

And since we're trying to deal with people who are not obsessive about filling their tires with air, it's probably that group of people that we're most concerned with. It might be the Mom with the three kids and all the other activities that she's trying to have a job as well, not checking all the tires. But waiting for that light to go on because she bought a new vehicle that has a light that will go on when there's a problem, but not if two tires are under inflated.

Now I'm told that there are collateral benefits of having an antilock brake system go into place and I guess there would be because if one of the tires did blow, when two of them were out, you'd have a higher percentage of likelihood that the brakes would work at that point. So you would have a good braking system when the tires blew. But you wouldn't necessarily get warnings that the tires were going to blow because it would only warn you if one tire was underinflated and you'd get deceived, in other words. You'd actually be put into a situation where it was an attractive nuisance. It was an invitation to keep driving, driving faster, because the light

will go on whenever you have a problem, but not if two are out, all four are out, underinflated, which I'm afraid for too many families, that is the case. They just don't pay attention. That's the point of the light, to warn you. And of course, if you inflated them all at the same time, originally, they're probably deflating at the same rate into that dangerous category. Makes sense to me. Maybe I'm wrong, but that's how my human nature works.

So my concern is that we not miss an opportunity here to get people what they really do need to deal with their real lives, which are busy. They see a vehicle as just another appliance. They don't pay as much attention to it, all too many Americans as they should perhaps, but we can't assume that they're going to. And since most of us do get surprised when we start filling up our tires, it's not just that one that you notice on the side as you're getting into the car, but it is the one or the other on the other side as well, that NHTSA, I think, is heading in the right direction here. So I'd like, if you could, Mr. Graham, just to respond to that because I think that's a legitimate real world concern that has to be addressed as NHTSA tries to balance your concerns.

Mr. GRAHAM. Congressman, you raise a number of excellent points and I have to say in all candor that in many ways a lot of the arguments are very familiar to me because Dr. Runge has been making these arguments to me over the last week or so and I think that there is a pretty clear case that direct monitoring devices on each of the four tires is going to provide better tire-related safety than a 1-tire standard that uses the type of indirect measurement system that you referred to.

However, we should keep in mind that the indirect technology linked to the ABS system is not fixed, it's not constant. There's effort under way now to improve the quality of indirect systems and if we were to make a decision too early that we're not going to be permitting those indirect systems in the future, that has the potential to slow the rate of technological progress in the development of indirect systems. So the agreement that Dr. Runge and I have engineered is that for the next 2 years we will continue to study the actual tire pressure levels in those vehicles out there that have indirect systems to determine whether or not they're of significant safety benefit. And, at the same time, we shall watch the development in the technology. It may be in the final analysis that NHTSA is right, that we ought to go for the 4-tire system and mandate that or it may be that we'll learn some things in the next couple of years that would lead us to a different conclusion. But I think our agreement is for Model year 2007 and beyond, we don't need to decide that issue today.

Mr. MARKEY. Here's my problem, Doctor.

Mr. STEARNS. The gentleman's time has expired.

Mr. MARKEY. If I may have 1 additional minute, I would appreciate it.

Mr. STEARNS. By unanimous consent, so ordered. One additional minute.

Mr. MARKEY. Thank you. I am, after 26 years on this committee, become a technological agnostic. I don't know what the future holds and yeah, there are a lot of geniuses out there and they're going to try to shoot down a Soviet missile in a minute and a half after

it's launched and this committee is going to try to make sure that we can call across the country and have video conferences with our families across the country and it only costs 10 cents a minute. We know that that will happen some day, but maybe not in our lifetimes. So while all of this technologically possible, it doesn't mean that it's ever going to be achieved. And so my message to you is this, that unless you can put on the books a standard which guarantees that families driving their children to school or to vacations have a warning light that comes on that is accurate, and timely to protect the safety of those families, then this amendment, the Markey Amendment is not being implemented. And we cannot delay pending industry disinterest in putting the strongest possible standard on the books pending some investment that they're going to make in the future. Because if that doesn't happen, there must be some guillotine, some hammer which comes down which mandates that it happens because 4 years from now every new car in the United States should have a guarantee that when there is one underinflated tire, one, that the light comes on. Now it could be a direct or indirect, but if they don't develop it, you can't give them an indefinite extension of time because they will take that as a blank check to not provide the public safety which for the past generations these industries——

Mr. STEARNS. The gentleman's time has expired.

Mr. MARKEY. [continuing] have not provided to the public. That's why we're here. We're here because these industries did not provide the safety for these families. And we're deluding ourselves if we believe they're going to pay the price voluntarily. They will delay. They will stall. They will use any scientific or technological hedge to make sure they don't have to put this in place. And we went through too much in here, we saw too much suffering to allow this to be delayed any further than it absolutely has to. And there has to be a guarantee that the hammer comes down and that they put in a system that works in a very brief period of time.

Mr. STEARNS. The gentleman's time has expired. We're going to take a break, but the gentleman from New Hampshire has one quick question and then we'll take a break.

Mr. BASS. Yes, thank you very much. Dr. Runge, does NHTSA have any idea at this point what the cost of the early warning rulemaking will be to the automobile equipment manufacturing industry?

Mr. RUNGE. Congressman Bass, I do not have the answer to that question. I'd be happy to consult my staff. They may have it. I will get that during the break and we'll get back to you.

Mr. BASS. I yield back, Mr. Chairman.

Mr. STEARNS. I thank the gentleman. The committee will take a break. If you allow, indulge us, we're going to vote and we'll be back and we'll have a second round of questioning.

[Brief recess.]

Mr. STEARNS. The subcommittee will reconvene and at this point we finished, except for Mr. Sawyer and then we'll start a second round of questioning and so the gentleman from Ohio is recognized for 5 minutes for his set of questions.

Mr. SAWYER. Thank you very much, Mr. Chairman. I have a couple of observations and then a line of questioning I'd like to ask.

First of all, I am very pleased to see Dr. Runge engaged in the question of worker safety. It is both a question of safety and very, very substantial cost for what I suspect you may find is a marginal gain in consumer information. But nonetheless, I commend you for your interest in making sure that consumers are able to locate tires that may be at risk.

Second, I want to suggest to you that I really value anything that you can do to make ABS and other traction management systems more universal in automobiles. I value those systems, but I would hope that in determining which tire pressure monitoring system you go to, that standards for accuracy tolerance be the way in which you measure which system works better. I continue to believe that it is not the—it is less frequently a matter of absolute defect in tires than it is cumulative damage over time for marginal under inflation that ultimately leads to catastrophic failure. It's the effect of heat in an under inflated tire that does the damage, it seems to me. So I was really grateful to hear the conversation that took place.

Let me turn to a more direct question. I understand that the labeling rule would re-order the location of the production date in the alpha numeric sequence that identifies the tire. Am I correct about that?

Mr. RUNGE. Congressman Sawyer, I've got to confess that my knowledge of the technical details of where these numbers are, other than on either side of the tire is very limited.

Mr. SAWYER. What I'm suggesting is that it goes from the last item in the identification series to the first item in the identification series and I for the life of me can't understand why that's important? But I do know that in the course of making the transition from older tires where it's located on the back to newer tires where it's located on the front, that it has a high likelihood of exacerbating consumer confusion rather than illuminating the information it's trying to convey.

I also suspect it could affect the data base system and the difficulty in managing huge amounts of data where you've got different sequences of identifier.

Have you looked at those kinds of things or have your folks looked at those kind of things? Has the IG looked at that as a problem in consumer information and data base management?

Mr. RUNGE. No sir, but I can promise you that Mr. Kratzke, my Associate Administrator for Performance Standards, has been writing diligently behind me. He notes here that the reorder is because consumers often give us the first four digits of the long number that they see when they are reporting complaints. And the comments that we receive during the comment period mirrored yours, that we may be causing more confusion than we are solving and this will be resolved in the rule. I do thank you for your comment.

Mr. SAWYER. Thank you very much.

Mr. MEAD. No, we have not, but the illustration of the code reminds me of an issue with the system. Say you get a complaint in or something from the manufacturer that does list the code. You want your system to be able to put that in the right place. Say somebody else writes in and doesn't have the full code, but they're referring to the same tire. Will this system be smart enough to be

able to reconcile it or at least edit it out and put it in a bin and say to some staffer at NHTSA this doesn't fit in the right place. You have to figure out where to fit it. I think it's a really good point, but the direct answer to your question is no, we haven't looked at that issue.

Mr. SAWYER. I am grateful for your willingness to take a look at it. I see I'm about to run out of time. Are we going to have a second round, Mr. Chairman?

Mr. STEARNS. Yes, we are.

Mr. SAWYER. I'll yield back. The gentleman's time has expired. I'll start the second round.

Mr. Mead, are there any recommendations that the Inspector General made that NHTSA is not implementing?

Mr. MEAD. They were responsive overall. I was very encouraged, and particularly encouraged with Dr. Runge's and our interface. Now I would hasten to add that we made two recommendations, one dealing with the information management system and the second dealing with the rulemakings. I do think there is a benefit in letting this committee and other appropriate committees know regularly the status of all these rulemakings and not just oh, it's coming, but also kind of a heads up that there are some very contentious issues surrounding the early warning rulemaking and this date may not be met.

I think that's beneficial, good interchange between the executive branch and the legislative branch. I want to make sure on the information management system that we get a third party in there that knows something about software that is verifying and validating that software to make sure that it's going to meet NHTSA's requirements and that Dr. Runge has very good advice on problems that are developing and what mid-course corrections to make.

On the peer review, they've been very responsive to our recommendation. I think that's an extraordinarily positive step and a change, material change in the procedures. They also need to have some procedure where a staffer, a screener of complaints does not recommend an investigation. How does that get on the radar screen of this panel? Because that's, in effect, a decision not to move forward with something, made at a low, not a low—but a middle management level.

I think NHTSA can figure out some way to implement that recommendation.

Mr. STEARNS. I think, Dr. Runge, it sounds like you got a passing grade here.

I think that's what he gave here. He mentioned this peer review panel to ensure consistency in decisions, whether an investigation should be opened. I am just your response to what he just said.

Mr. RUNGE. Well, in general, he's exactly right. I would point out that when a screener chooses not to bring a series of cases to the attention of the panel, it's not because they have written it off, it's because they're following it along. When these complaints come in, they are coded in certain ways, as Mr. Mead pointed out earlier, and they're coded by individuals who code these things all the time. So they know into what category these complaints should go and the screeners develop an expertise around the areas of complaints that they deal with.

When something smells bad to them, for lack of a better term, they bring it up. If it has not yet risen to that level, they follow it along. So he's exactly right in that we do need some fail safe method——

Mr. STEARNS. Of peer review?

Mr. RUNGE. Of identifying cases that may not have risen to that level, but a periodic look at the cases that are being followed.

Mr. STEARNS. He had mentioned that the NHTSA data base is fraught with problems and errors. And are you folks agreed to sort of review and edit the existing data before transferring this new information in if it's already fraught with errors and how are you handling that?

Mr. RUNGE. That's a great question. I think we have some difference of opinion about how fraught with errors it is.

Mr. STEARNS. So you're saying it's not?

Mr. RUNGE. Well, we can always do better. One of the beauties of the new system coming in is that we are going to have to incorporate a lot of our existing information into the new surveillance system. I believe as part of that process the cleaning up and recoding will be a natural course of events there.

Mr. STEARNS. Let me ask each of you what is the No. 1 concern toward implementing the TREAD Act today? What would you think the most important No. 1 problem that we could leave this hearing with an understanding from each of you that we would have to accomplish?

Dr. Runge, I'll start with you first.

Mr. RUNGE. As I consult my cheat sheet of corrections here——

Mr. SAWYER. Forty or 50 probably.

Mr. RUNGE. I learned the entire human body in 4 years; after 6 months, I'm barely scratching the surface of the TREAD Act.

Mr. SAWYER. Yes. That's a nice honest——

Mr. RUNGE. I would say quite honestly, this is a difficult question to answer because so many of these things are so very important and you have given us the resources and the opportunity to address things that had frankly been not addressed. I do believe personally that the early warning system, if done the way we expect it to be done, will result in our ability to detect problems sooner before they rise to the problem of a national public health emergency.

Getting help from artificial intelligence will enable us to do a better job, and I really do believe that when we look back at this thing 10 years from now, of all these rules that have come out, that will be the one where we will look at it and say that really was a good investment of the taxpayer's money.

Mr. STEARNS. Dr. Graham?

Mr. GRAHAM. Yes, Mr. Chairman, there has been a lot of attention this morning on the deadlines issues and the pace of rulemaking and this sort of thing and I think it's perfectly appropriate that a committee like this put that type of constructive encouragement on both NHTSA and OMB. However, I think like Dr. Runge suggested, 10 years down the road when we look back, the quality of these rules in terms of the underlying engineering and economic information behind them, is going to influence whether or not we have saved as many lives as we can with the resources available.

In that sense, I think the technical issues here should not be overlooked.

Mr. MEAD. I think you're going to get a very good rulemaking for the early warning system. I think the manufacturers will largely comply and you'll have lots of information at NHTSA and it will be important that you know how to distill, synthesize that information, sort through it, get rid of the junk, the garbage and hone in on the important ones.

Mr. STEARNS. So the No. 1, toward implementation is getting rid of the information that's not relevant and making sure that the relevant information is part of the early warning system?

Mr. MEAD. Yes sir. I think the advanced rulemaking that I've reviewed for the early warning system is quite credible.

Mr. STEARNS. Okay. Thank you. My time has expired. The gentle lady from Colorado.

Ms. DEGETTE. Thank you, Mr. Chairman. To finish the question I was asking earlier to Dr. Runge, Mr. Mead suggested that you need an outside person to help you, to make the software work. And Dr. Runge, what I was simply asking was do you have any big objection to implementing that kind of control to make sure that your software is actually working to get the data that you're going to need?

Mr. RUNGE. Absolutely no objection at all, other than the economic barrier that we face in hiring that kind of consultant.

Ms. DEGETTE. I think I can speak for the whole committee, Dr. Runge, in saying we want to make sure this is done right and so if it costs extra money, I would not hesitate to hire an outside individual consultant to make sure that your software is right to begin with. If you need the money, please come and let us know because the important thing is that the Act get implemented right and I think you would agree with that.

Mr. RUNGE. Yes ma'am, thank you very much.

Ms. DEGETTE. Let me just ask one more question. I know, Doctor, that you testified earlier that you were coordinating with a number of industry representatives and what the TREAD Act says is, of course, that the suppliers and manufacturers are going to have to comply with this early warning rule.

So I'm wondering, of these groups, how many of these industry participants have you consulted in developing the information management system? The 23 light vehicle manufacturers, all heavy truck manufacturers? All recreational vehicle manufacturers? Auto suppliers, child seat manufacturers, school bus manufacturers and on and on? How many of those have you consulted in developing the data base?

Mr. RUNGE. Thus far, I can't answer that question. I can tell you that we are planning to have technical working groups in the summer to get together on how to best receive the data from them. The quality of the data will depend greatly upon on how it's done at the front end and we recognize that.

Ms. DEGETTE. That's right. Mr. Mead, what do you think about the fact that none of these or few of these groups have been consulted to date on developing the data base?

Mr. MEAD. I think now is the time to consult with them.

Ms. DEGETTE. Thank you. I would urge that that happen, too.

And Mr. Chairman, if I might, I think there's a great deal of good will in this committee toward NHTSA and to Dr. Runge who's recently come into the job. I think the motives are good, but I think there's also a growing amount of concern about the delays and implementation of the TREAD Act. And frankly, Mr. Chairman, I'd hate to be back here in another year finding out that implementation is once again delayed. But worse, I'd hate to be back here in 5 years having a hearing and learn that NHTSA did not find the needle in the haystack that Dr. Runge talks about, that because of an inadequate database or inadequate information management, more American lives have been lost and so I would really urge all of you to work with all due speed, but also with all due thoroughness, to make sure that this Act is implemented correctly.

And I yield back the balance of my time.

Mr. STEARNS. I thank the gentle lady. The gentleman from Ohio.

Mr. SAWYER. Thank you, Mr. Chairman. As I understand it, currently when a passenger tire is installed on an SUV or a light truck, the tire's load rating is reduced by 10 percent. That 10 percent reduction was omitted from the proposed rule. Having the, I suspect, unintended consequence of permitting a load increase of 10 percent for passenger tires used on those kinds of vehicles seems to conflict with the intent of the Act and I'm just inquiring whether this was an omission or whether it's a change in policy?

Mr. RUNGE. Mr. Kratzke tells me that this was not omitted from the rulemaking. They are aware that passenger car tires are derated for load at 10 percent.

Can you ask me more specifically and I'll make sure I get you the right answer quicker.

Mr. SAWYER. I'd be glad to. Let me, Mr. Chairman, while I've got a little extra time, I remember last year when we asked the great Jacques Nasser whether tires and automobiles function together as a system and he sat just about where you are, Doctor, and said no, they do not. And I was just dumbfounded by that. I found something I'd like to read for the committee, put into the record. A Ford engineer arrived, named Jacques Beget, arrived in the United States in 1955 and found a niche in the relatively unexplored world of quantifying tire and suspension interaction. Beget stressed the need to analyze tire, vehicle and road together rather than to think of the tire alone. And he wanted hard numbers. His persistence led to a string of SAE publications explaining numerical analyses of skid and rolling resistance, wet traction, nonuniformity among tires and the behavior of radial tires on American cars. In 1965, Automobile News could report "for the first time, Detroit auto makers are actually setting the design requirements of the 35 to 45 million tires they purchase annually." Their demands had never been truly quantifiable before.

This is the same Jacques Nasser who when asked by William Ford who is the highest paid employee of the Ford Motor Company, replied well, I'm the President and you're not compensated directly, so I guess it's me. He said no, it's a fellow named Edward Irvine. And he said do you know who Edward Irvine is? He says he makes $13 million a year. He had no idea who he was. He said he's our Formula One driver with our Jaguar Division. You should have known that. My guess is he should have known this too.

I thank you, Mr. Chairman, and yield back.

Mr. STEARNS. As CEO of Ford Motor Company, of course, he's no longer there.

Mr. SAWYER. Yes, that's true.

Mr. STEARNS. The gentleman from Massachusetts is recognized for a second round of questioning.

Mr. MARKEY. Thank you, Mr. Chairman. And I don't want to prolong this because obviously, I made pretty clear what I was interested in during my first round. I guess what I wanted to say though is that whether it be a direct or indirect system, they're fine during a transition, obviously. Makes sense. At the time that we did the TREAD Act, this tire safety act, a couple of years ago, there were already models out there. So we already had a model. Early stage stuff. It was already out there, in vehicles, proving that it could be done and done inexpensively which is why I think my amendment was basically something that everyone could agree on this committee should be adopted, if it was already out there in that early stage of development. And that was an indirect system based on ABS which was fine, but at some point in the future we need to move to a system that lets you know if you're at risk if two or all of your tires are underinflated which I'm afraid is an all too typical situation for average, busy American families. And we just have to give them that. And that's the real intent of the Act.

Now some day an ABS system might achieve that, but at some point after a transition I think NHTSA is right, we have to move to the technology that provides the safer, more accurate warnings for American families. And we can't delay that indefinitely waiting for a technology to arrive that might never arrive, as much as would hope that it would. And so that's basically my message here today, that we have to have the goal as being firm if families are given all the information about all their tires. And if the industry announces they're in a crash program and that they're going to develop an ABS based system and it's going to be there in 2 or 4 years, that's fine. But again, as I said, I'm an agnostic technologically. I want a hydrogen-based automobile. I want many things in life. I want nonfat strawberry shortcake, I want many things, okay, and I'm sure there are people trying to do it, but it's unlikely that—well, I'm not going to say it's impossible, but Mr. Graham, Dr. Runge, all I'm saying is that as long as your agreement gives us certitude and a deadline and that the public at a date certain knows that their family, when they buy a vehicle has all four wheels, whether it will be for some system or the other that will be given the proper warning to the driver that their family might be in danger, then we can live with that. It can't be something that's used by the industry to achieve a delay in installing the kinds of protection. So as you work together that would be my one message.

Thank you.

Mr. STEARNS. Thank you, sir. I thank the gentleman, and Dr. Runge, I want to thank you for your participation; Dr. Graham, Mr. Mead. We have heard during this hearing some testimony which has us concerned, obviously, because this is not being as expedited as Members of Congress we thought it would be on a much quicker schedule.

What I'm going to suggest, Dr. Runge, is that you—we get together periodically and you brief us where you are at and I'm suggesting perhaps if we see another delay, we see problems, to your benefit it may require us to have another hearing in the fall so that we can have a wrap up and see where we are and see whether it's materials, resources or something that we can provide or what we can do to help you, but you have an arduous task. We're here to support you and we appreciate all of your testimony and you indulged us while we took a vote and the committee is adjourned.

[Whereupon, at 11:50 a.m., the subcommittee was adjourned.]

[The reports of the OMB and the NHTSA follow:]

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

ADMINISTRATOR
OFFICE OF
INFORMATION AND
REGULATORY AFFAIRS

FEB 12 2002

Mr. Kirk K. Van Tine
General Counsel
U.S. Department of Transportation
400 Seventh Street, S.W., Room 10428
Washington, DC 20590

Dear Mr. Van Tine:

The Office of Management and Budget (OMB) has been conducting an expedited review under Executive Order No. 12866 of the draft final rule prepared by the National Highway Traffic Safety Administration (NHTSA) entitled "Tire Pressure Monitoring Systems." In accordance with recent legislation passed by Congress, the draft final rule addresses an important public safety issue: the traffic crashes, injuries and fatalities that result from operating a vehicle with underinflated tires.

OMB supports NHTSA's establishment of a safety standard in this area. However, the analysis NHTSA has performed to date does not adequately demonstrate that NHTSA has selected the best available method of achieving the regulatory objective: enhanced highway safety. Therefore, we are returning this rule to NHTSA for reconsideration of two analytic concerns related to safety. First, we have identified a regulatory alternative – one that NHTSA has not explicitly analyzed – that may provide more safety to the consumer than the draft version of the final rule. In order to analyze this alternative with care, NHTSA needs to consider the impact of regulatory alternatives on the availability of anti-lock brake systems (ABS). Second, the technical foundation for NHTSA's estimates of safety benefits needs to be better explained and subjected to sensitivity analysis. My staff is available and eager to work with NHTSA to complete this analysis and the rulemaking as expeditiously as possible.

Many vehicles on the road do not have any tire pressure monitoring system. For these vehicles, the owner or driver must take the initiative to periodically check the pressure of the vehicle's tires to ensure that each of the tires is inflated to the proper pressure level. The available evidence suggests that many people do not regularly check their tires, or at least do not take the steps to achieve optimal tire inflation. As envisioned by Congress, the draft final rule would establish a Federal Motor Vehicle Safety Standard under which tire pressure monitoring systems would have to be installed in all new passenger cars, light trucks, multi-purpose vehicles and buses weighing up to 10,000 pounds.

There are two types of tire pressure monitoring systems, both now used in some vehicles, that NHTSA believes are possible compliance choices for vehicle manufacturers. "Direct" systems monitor pressure by means of instruments installed in each wheel. Indirect systems infer

tire pressure from information already available in vehicles that are equipped with anti-lock brake systems. In particular, the indirect system detects pressure differences between wheels by sensing differences in their rotational speeds. Underinflated tires have smaller diameters and thus rotate faster.

The draft final rule would establish, over a four-year phase-in period, a standard under which all new vehicles would be required to have some tire pressure monitoring system. During the phase-in period, compliance could be achieved with either indirect or direct systems. However, after the phase-in, the performance standard would be altered in a way that effectively prohibits compliance with a purely indirect system. The vehicle manufacturer would instead be compelled to comply with a direct system. NHTSA believes a so-called "hybrid" system, which would combine elements of direct and indirect tire pressure monitoring, could also meet the rule's performance standard. However, no such hybrid systems have yet been installed in vehicles and the public record provides little information about their likely performance or cost.

OMB believes that a rule permitting indirect systems may provide more overall safety than a rule that permits only direct or hybrid systems. This additional safety may be available at a lower total cost to the public. Although direct systems are capable of detecting low pressure under a greater variety of circumstances than indirect systems, the indirect system captures a substantial portion of the benefit provided by direct systems. Moreover, allowing indirect systems will reduce the incremental cost of equipping vehicles with anti-lock brakes, thereby accelerating the rate of adoption of ABS technology. About one-third of new vehicle sales currently lack anti-lock brakes necessary for an indirect system. Both experimental evidence and recent real-world data have indicated a modest net safety benefit from anti-lock brakes. Before NHTSA finalizes a rule that disallows indirect systems, OMB believes that the potential safety benefits from more vehicles with anti-lock brakes need to be considered. In a preliminary analysis attached to this memorandum, OIRA staff show that a rule permitting indirect systems may provide more overall public safety at less cost to the consumer than NHTSA's preferred alternative.

OMB is also concerned that NHTSA's estimates of the number of crashes, injuries and fatalities prevented by direct systems are based on limited data and/or assumptions that have not been fully explained or analyzed. For example, NHTSA assumes that 95% of consumers would respond promptly and effectively to a warning light indicating that the vehicle has a tire inflation problem. No data, such as estimates of driver response rates to existing safety-related warning lights, are provided to support this figure. While the safety benefit estimates stemming from reduced skidding and better control are based on a well-done study, that study unfortunately was published in 1977, before the widespread existence of front-wheel drive, radial tires and SUVs and minivans. It also appears that NHTSA's use of experimental data on shorter stopping distances from proper tire inflation was based on insufficient consideration of all of the available data. In light of the limited data and insufficiently supported assumptions, OMB suggests that NHTSA's regulatory analysis should include more sensitivity analysis of the type that is found in many previous regulatory analyses prepared by NHTSA. NHTSA should also provide additional explanation of the data choices and uncertainties underlying its analysis.

In conclusion, OMB believes that, before issuing a final rule, NHTSA needs to provide a stronger analysis of the safety issues and benefits, including a formal analysis of a regulatory alternative that would permit indirect systems after the phase-in period. Moreover, NHTSA could analyze an option that would defer a decision about the ultimate fate of indirect systems for several more years, until the potential impact on installation of anti-lock brake systems is better understood. In addition to representing sound public policy, the consideration of the suggested regulatory alternative is required under Sections 202 and 205 of the Unfunded Mandates Act (2 U.S.C. 1532 and 1535) and under Section 1(b)(5), (8), and (11) of E.O. 12866.

Accordingly, I am returning the draft final rule for reconsideration. My staff and I are available to work with the agency in the reconsideration of this matter and in the prompt promulgation of an important safety rule.

Sincerely,

John D. Graham, Ph.D.
Administrator
Office of Information
and Regulatory Affairs

Enclosure

cc: Dr. Jeffrey W. Runge

OIRA Enclosure (2/12/2002)

This enclosure describes in detail our concerns with the draft Final Economic Assessment (FEA). It presents - for illustrative purposes - an analysis of an option that has the potential to achieve substantially greater safety at lower cost than the draft final rule. The enclosure also includes a discussion of some of the major uncertainties and potential biases associated with key assumptions in the FEA and suggests possible ways to address them.

Background

After a four-year phase-in, the draft final rule would require that tire pressure monitoring systems (TPMS) be able to detect when up to four tires are 25 percent or more underinflated. The FEA includes analysis of direct and "hybrid" TPMS. Direct systems monitor tire pressure directly by means of sensors installed in each wheel. Hybrid systems would monitor tire pressure by combining elements from a direct system with elements from an indirect system. Indirect systems infer tire pressure from information already available in vehicles equipped with anti-lock brake systems (ABS). They detect pressure differences between tires by sensing differences in wheel rotational speeds. Underinflated tires have smaller diameters and thus rotate faster. No indirect systems currently available can meet a four-tire standard. The rulemaking record is also unclear on whether hybrid systems could do so.[1] Nevertheless, we assume for the sake of argument that NHTSA is correct in its belief that hybrid systems could meet a four-tire requirement.

The FEA presents quantified estimates of two components of cost: "vehicle" (e.g., hardware) and maintenance costs for each system. The benefit estimates include the value of fuel savings and reduced tire tread wear that would result from each system. The FEA presents the difference between costs and the fuel and tire wear savings as "net costs." The FEA also includes three categories of quantified safety benefits: reduced skidding and better control, shorter stopping distances, and fewer flat tires and blowouts. For direct systems, the FEA estimates a net cost (i.e., total cost minus the value of fuel economy and tire tread wear benefits) of $1,240 million per year and safety benefits of 10,271 injuries and 141 fatalities averted per year when applied to the entire on-road fleet. For hybrid systems, the FEA estimates a net cost of $862 million per year with safety benefits of 8,722 injuries and 124 fatalities averted per year.

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[1] We were unable to locate anything in the rulemaking record indicating that hybrid systems would be able to detect four simultaneously low tires. The rulemaking record on the performance and cost of hybrid systems appears to be limited to two paragraphs in one comment. That comment stated, "The current releases of indirect TPMS will require the equivalent of the addition of two direct tire pressure sensors and a radio-frequency receiver to meet the requirement to detect *two* simultaneously low tires under ***alternative 2*** [emphasis added]." Under the proposed rule, "alternative 2" would have required the detection of up to three, not four, simultaneously low tires. That comment also asserted, "...the maximum cost to implement these changes to be about 60% of the cost of a full direct TPMS for vehicles already equipped with an ABS." The commenter provided no further information on the performance or cost of such a system. To date, no such system has ever been produced or installed on a vehicle.

1. Evaluation of Alternatives

The FEA does not meaningfully compare viable alternatives. Specifically, NHTSA did not analyze the benefits and costs associated with an alternative requirement that would allow indirect systems to continue to be used indefinitely (i.e., a 30 percent underinflation, 1-tire standard). There are in excess of 2 million TPMS-equipped vehicles on the road today, the vast majority of which are indirect systems.

Based on information in the Preliminary Economic Assessment (PEA) and the FEA, a requirement that allowed indirect systems indefinitely could achieve comparable and, quite possibly, substantially greater safety benefits at lower cost than those associated with the final rule. An option that allows indirect systems will provide an inducement to install anti-lock brakes (ABS) on more vehicles. We present the following analysis for illustrative purposes only. We believe that the example shows that indirect systems warrant a complete and careful analysis. At the same time, we do not consider our example to be definitive. Further refinements by NHTSA may be necessary.

A. Costs and Benefits of an Indirect System

Based on information contained in the PEA, and consistent with assumptions in the FEA, we estimate that an indirect system would cost an average of about $30 per vehicle in "vehicle" (e.g., hardware) costs and an additional $13 in maintenance costs, or a total of about $720 million per year. Indirect systems would result in about $200 million in fuel and tread wear savings combined for a net cost of about $520 million per year. We estimate this option could achieve safety benefits of about 5,000 injuries and 70 fatalities averted per year when applied to the entire on-road fleet.

B. The Anti-lock Brake Effect - Induced ABS

Indirect versus direct systems - Allowing indirect systems likely would induce vehicle manufacturers to equip a greater percentage of the new vehicle fleet with ABS.[2] This is because vehicles not equipped with ABS will need a more-expensive, direct system to comply with the rule. For direct systems, the FEA estimates vehicle cost of $66.50 per vehicle. For vehicles already equipped with ABS, the vehicle cost of an indirect system would be $13.29 per vehicle.[3] Thus, a manufacturer who decided to install ABS in a vehicle that would not have ABS otherwise can reduce the (vehicle) cost of compliance by about $53 per vehicle. In other words, a rule that

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[2] For model year 2000 about 68 percent of new cars and light trucks were equipped with ABS. Although the percentage of new vehicles equipped with ABS generally has increased in recent years, it appears to be leveling off. In 1999, 68.3 percent of the fleet was equipped with ABS.

[3] The average cost of $30 mentioned above is higher because it is a weighted average of both direct and indirect systems, since vehicles without ABS would require direct systems.

would allow indirect systems would reduce the incremental cost of adding ABS by $53, since the manufacturer could avoid the cost of a direct system.[4]

According to NHTSA, the average cost of ABS is about $240. Therefore, a manufacturer could save about 22 percent ($53/$240) of the cost of equipping a vehicle with ABS by avoiding the cost of a direct TPMS. Assuming a price elasticity of demand for ABS of 1[5] (i.e., each 1 percent decline in the price of ABS induces a 1 percent increase in quantity demanded), a 22 percent reduction in the cost of ABS would result in a 22 percent increase in the number of new vehicles equipped with ABS. Thus, we could reasonably expect about 7.4 percent of the new vehicle fleet (22 percent of the 33 percent of the new vehicle fleet without ABS), or about 1.1 million vehicles, to be equipped with ABS as a direct result of this option.

A recent study in a peer-reviewed journal[6] estimated that light-duty vehicles equipped with ABS are between 4 and 9 percent less likely to be involved in fatal crashes of all types. (These estimates are not statistically significant. However, they appear to represent the best estimates available at this time.) Overall, there are about 40,000 fatalities per year involving these vehicles. Thus 7.4 percent of the fleet accounts for about 2,960 fatalities per year. Reducing these by 4 to 9 percent would mean 118 to 266 fatalities[7] averted per year as a result of additional ABS induced by the rule. Adding these to the 70 fatalities averted from indirect systems without the additional ABS yields a total of 188 - 336 fatalities averted or between 47 and 195 *more* than with direct systems.

We calculated the nationwide aggregate cost of the additional ABS systems as follows: About 1.1 million (7.4% x 15 million new vehicles/yr.) more vehicles would be equipped with ABS. Since the FEA already accounted for these vehicles having to install direct systems, the increment to the FEA aggregate cost estimate is about $206 million per year (1.1 million vehicles x $187 ($240 - $53)). This brings the net cost of the indirect system approach (including the cost of additional

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[4] The remainder of this analysis assumes that the consumer does not correctly perceive the difference in maintenance cost. If he or she did, the effective "discount" on ABS would be substantially *greater* -- an additional $40 or so when comparing direct with indirect systems.

[5] We do not have an empirically-based estimate of the price elasticity of demand for anti-lock brakes. However, NHTSA reported in the draft preamble to the final rule that one vehicle manufacturer said it would add ABS to an additional 400,000 vehicles if indirect systems are permitted. This alone accounts for more than 1/3 of the additional ABS our illustrative example assumes. In public comments, all vehicle manufacturers supported a 30%, 1-tire standard. Thus it does not appear that this manufacturer made this statement in the context of a standard that today's indirect systems cannot meet.

[6] Farmer, Charles M., "New evidence concerning fatal crashes of passenger vehicles before and after adding antilock braking systems," Accident Analysis and Prevention, 33 (2001), 361-369.

[7] The study we relied upon did not estimate ABS effectiveness rates for injuries. We estimated injury reduction benefits attributable to ABS by assuming that injury reduction benefits would occur in the same proportion to fatalities (i.e., between 70 and 75 injuries per fatality) as NHTSA estimated in the FEA.

ABS systems) to about $726 ($520 + $206) million per year, or about $514 million per year *less* than the net cost of direct systems.

Indirect versus hybrid systems - The FEA estimated the vehicle cost of a hybrid system to be $39.90 per vehicle. This is about $26.50 less than the vehicle cost of a direct system, or about half of the savings per vehicle associated with indirect systems. Following the approach we used for indirect systems, manufacturers who choose a hybrid option over a direct system can also effectively capture the savings as a cost reduction for providing ABS. Under the same assumptions we used above, this would result in an additional 3.7% of the new vehicle fleet (about 550,000 vehicles) being equipped with ABS. This, in turn translates into an additional 59 - 133 more fatalities averted and about $117 million additional net cost compared with hybrid systems with no ABS effect. The total benefits for hybrid systems would then be 183 - 257 (124 + 59 and 124 + 133) fatalities averted per year and the net cost would be about $979 million per year. Including the ABS effect, allowing indirect systems would avert between 5 (188-183) and 79 (336 - 257) *more* fatalities and about $250 million in cost per year than would hybrid systems. The table below summarizes these estimates.

System		National Estimates (without ABS Effect)[8]			National Estimates (with ABS Effect)		
	Cost per vehicle	Annual Net Cost ($millions)	Annual Injuries Averted	Annual Fatalities Averted	Annual Net Cost ($millions)	Annual Injuries Averted	Annual Fatalities Averted
Direct	$66.50	$1,240	10,271	141	$1,240	10,271	141
Hybrid	$39.30	$ 862	8,733	124	$ 979	12,888-18,099	183-257
Indirect	$13.29	$ 520	5,000	70	$ 726	13,429-24,000	188-336

Because of this possibility, NHTSA should carefully evaluate the benefits and costs of an option that would allow indefinite use of today's indirect systems. We hope that the illustrative example we provide here will serve as a useful starting point for such an analysis. As a longer-term project, NHTSA should also evaluate the on-road performance of current direct and indirect systems.

[8] The estimates for the direct and hybrid systems are take from the draft FEA. The estimates for an indirect system are OMB estimates based on information in the PEA and, to the maximum extent possible, consistent with assumptions NHTSA made in its draft FEA.

2. Safety Benefit Estimates

The quantified safety benefits in the FEA are divided among 3 categories: reduced skidding and better control, shorter stopping distances, and fewer flat tires and blowouts. The magnitude of each is directly related to vehicle owners' responses to low pressure warning lights. This section describes some assumptions about several uncertain or unknown key parameters that affect the magnitude of the safety benefit estimates. Each assumption warrants some empirical grounding and/or sensitivity analysis.

A. Vehicle Owner Response to Warning Light

The safety benefits from a TPMS system depend critically on how vehicle owners respond when the low pressure warning light comes on. There can be no benefit if owners ignore the warning light. The FEA assumes that 95 percent of all vehicle owners will respond to the warning light promptly and appropriately. In the Preliminary Economic Assessment, NHTSA assumed 60 percent of vehicle owners would respond to a light that did not specify which tire(s) was low by inflating their tires to the correct pressure and 80 percent in cases where the dashboard light indicated which tire was low. Neither the PEA nor the FEA provides an empirical basis for any of these response rates. At the same time, it is also likely that some vehicle owners will come to rely exclusively on the warning light to inform them of tire pressure and will reduce the frequency with which they normally check their tires. To the extent that this occurs, the benefits of the rule may decline, and may do so at different rates depending on the technology.

To provide a stronger foundation for its analysis, NHTSA should provide some empirical basis for this critical component of the analysis. NHTSA could, for example, perform an analysis of responses to other dashboard warnings. In any event, NHTSA should perform sensitivity analyses using alternative response rates. We believe that a carefully conducted survey and analysis of driver behavior and corresponding tire pressures in TPMS-equipped vehicles currently on the road would go a long way toward refining the estimates based on this parameter.

B. Reduced Skidding and Better Control

In the PEA, NHTSA stated it was not able to quantify this category of benefits. No commenters disagreed or suggested ways that NHTSA might do so. In the FEA, NHTSA estimated the benefits from reduced skidding and better control using a 1977 study, "Tri-Level Study of the Causes of Traffic Accidents, Final Report (Report)." This Report provides great detail on the circumstances associated with 420 crashes. It was well-done and for a long time served as a useful data source for understanding the causes of crashes. Unfortunately, because of changes in the nature of vehicles on the road, the report's value has diminished with the passage of time. The skidding and control component of the benefit estimates for this rule appears to stem from analysis of about six of the 420 crashes analyzed in the report. The small sample size alone is enough to warrant a sensitivity analysis.

Perhaps more importantly, though, the relevance of the vehicles and tires involved to the fleet of vehicles that this rule will affect is not clear. For example, none of the six vehicles in the Report had front-wheel drive, none were sport-utility vehicles (SUVs) or minivans, and, in all likelihood, none were equipped with radial tires. The newest of the vehicles involved in these crashes was a 1972 Pontiac. One of the six involved a 1960 Ford Falcon - a vehicle produced more than 45 years before the final rule will be fully effective. NHTSA should also provide more support for the assumption that these crashes are directly relevant to this rule.

C. Shorter Stopping Distances

Stopping distances vary greatly among vehicles and road and tire conditions. They also vary from test to test under the same vehicle, road, and tire conditions. All of the improved stopping distance benefits were based on tests of two vehicles: a Dodge Caravan minivan and a Ford Ranger pickup truck. The FEA appears to rely exclusively on the Caravan test results to estimate benefits for the passenger car fleet (but not for the minivan or SUV fleet). The FEA also appears to rely exclusively on the Ford Ranger test results to estimate benefits for the light truck fleet (including minivans and SUVs).

NHTSA chose not to continue to use results from a passenger car tested on a NHTSA test track. These results had formed part of the basis for benefit estimates in the PEA. They showed little, if any, effect of reduced pressure on stopping distances. This result is not surprising, for the same reason that the rule is expected to yield fuel economy and tread wear benefits - reduced pressure increases rolling resistance, and could be expected to *improve* stopping distances under at least some conditions. Although NHTSA received no comments suggesting these results were unrepresentative, it did not use them because of a belief that the test road surface was not sufficiently worn to be representative.

NHTSA does not explain why it believes the minivan test results better represent passenger car performance than NHTSA's own passenger car results. NHTSA also does not explain why it believes the pickup truck test results better represent minivan and SUV performance than the minivan test results.

Given the small sample size and variability of stopping distances, it is unclear whether any of the test results available to NHTSA are representative of much more than those particular vehicles. NHTSA should estimate benefits using its passenger car test results to represent passenger cars, the minivan test results to represent minivans and SUVs, and the pickup truck test results to represent pickup trucks. NHTSA should also perform some sensitivity calculations around the corresponding benefit estimates.

D. Flat Tires and Blowouts

In the PEA, NHTSA stated it did not have sufficient data to reliably estimate the magnitude of this category of benefits. Commenters agreed that there will be some benefits in this area.

However, no commenters disagreed with NHTSA's initial assessment that they could not be quantified. As was the case with skidding and control, none suggested ways NHTSA might estimate them. In the FEA, NHTSA produced an estimate of these benefits by assuming that 20 percent of blowouts are caused by low tire pressure. This new assumption warrants further justification and a sensitivity analysis, at the least.

Office of Inspector General

Audit Report

REVIEW OF THE OFFICE OF DEFECTS INVESTIGATION

National Highway Traffic Safety Administration

Report Number: MH-2002-071
Date Issued: January 3, 2002

Memorandum

U.S. Department of Transportation
Office of the Secretary of Transportation
Office of Inspector General

Subject: ACTION: Review of the Office of Defects Investigation, National Highway Traffic Safety Administration
MH-2002-071

Date: January 3, 2002

From: Alexis M. Stefani
Assistant Inspector General for Auditing

Reply to Attn. of: JA-40

To: National Highway Traffic Safety Administrator

This report presents the results of our review of the National Highway Traffic Safety Administration (NHTSA) Office of Defects Investigation (ODI). Our review was performed at the request of Senator John McCain, Ranking Minority Member, Senate Committee on Commerce, Science, and Transportation. During a September 12, 2000 hearing on the Firestone tire recall, the Committee questioned ODI's preparedness for handling information that may contain early warning signs of product defects. In October 2000, Congress passed the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act requiring NHTSA to establish early warning reporting requirements for manufacturers so that it is aware of potential defects as soon as possible.

Our objectives were to: (1) evaluate NHTSA's progress and challenges in implementing the TREAD Act; (2) assess the adequacy of NHTSA's processes and procedures for assessing potential defects and opening investigations; (3) evaluate the risks associated with NHTSA's approach for developing a new defect information management system; and (4) identify notification, investigation and recall requirements considered as "best practices" by other regulatory agencies and that may be used as models for improving ODI.

We are recommending that NHTSA ensure the timely completion of TREAD Act rulemakings by adhering to established milestones for each rulemaking stage. Further, departmental offices and other entities that must review the proposed rules will also need to adhere to the rulemaking schedules. We are also recommending that NHTSA ensure consistency in recommending and opening investigations by establishing a peer review process, and ensure the new defect information system development project is completed on time and within budget

by having an independent entity validate and verify that the new system will meet NHTSA's needs and reduce development risk.

We obtained comments on a draft of this report from NHTSA. NHTSA agreed to implement all of the recommendations or proposed an acceptable alternative action with one exception. NHTSA did not agree with a recommendation in the draft report to assign a full-time project manager to oversee the contractor's development of a new defect information system.

Given NHTSA's agreement to obtain the services of an independent entity to validate and verify the contractor's progress and reduce development risk, we have eliminated a recommendation to assign a full-time project manager. NHTSA's comments are presented in the Appendix to this report.

In accordance with Department of Transportation Order 8000.1C, we request that, within 30 days, NHTSA provide target dates for completing each recommended action.

We appreciate the courtesies and cooperation of the NHTSA representatives during this review. If I can answer any questions or be of further assistance, please feel free to contact me at (202) 366-1992, or Thomas J. Howard, Deputy Assistant Inspector General for Maritime and Highway Safety Programs, at (202) 366-5630.

Executive Summary

Review of the Office of Defects Investigation
National Highway Traffic Safety Administration

MH-2002-071 **January 3, 2002**

INTRODUCTION

This report presents the results of our review of the National Highway Traffic Safety Administration (NHTSA) Office of Defects Investigation (ODI). Our review was performed at the request of Senator John McCain, Ranking Minority Member, Senate Committee on Commerce, Science, and Transportation. During a September 12, 2000 hearing on the Firestone tire recall, the Committee questioned ODI's preparedness for handling information that may contain early warning signs of product defects. In October 2000, Congress passed the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act requiring NHTSA to establish early warning reporting requirements for manufacturers so that it is aware of potential defects as soon as possible.

Our objectives were to: (1) evaluate NHTSA's progress and challenges in implementing the TREAD Act; (2) assess the adequacy of NHTSA's processes and procedures for assessing potential defects and opening investigations; (3) evaluate the risks associated with NHTSA's approach for developing a new defect information management system; and (4) identify notification, investigation and recall requirements considered as "best practices" by other regulatory agencies and that may be used as models for improving ODI. The scope of our review and the methodology used to achieve our objectives are discussed in Exhibit B.

RESULTS IN BRIEF

In September 2000, Congress held hearings to determine why NHTSA, Firestone, and Ford did not identify tread separation defects sooner to prevent the numerous deaths and injuries associated with defective Firestone tires. During the hearings, Congress noted that the data available to ODI regarding the problems with Firestone tires were insufficient. However, while acknowledging that ODI lacked data, Congress also stated that ODI did not use the data it did possess to spot trends related to failures in these tires.

To address concerns that the motoring public is protected from future "Firestone incidents," Congress passed the TREAD Act in October 2000. For example, the Act

requires vehicle and equipment manufacturers to routinely report to NHTSA early warning data, such as information on property damage claims, communications to customers, and knowledge of fatalities or serious injuries caused by possible defects in a vehicle in the United States or a foreign country. The early warning reporting requirements rule is critical to ensuring that the motoring public is protected because it will increase the amount and improve the quality of data ODI currently uses to identify potential safety-related defects.

NHTSA has made progress in meeting the requirements of the TREAD Act; however, it still faces several challenges in fully implementing the Act and improving its ability to identify potential safety defects. Specifically, NHTSA must:

- **complete TREAD Act rulemakings, most importantly the early warning reporting requirements rule, in a timely and comprehensive manner. NHTSA has already completed 3 final rulemakings, but must still complete 12 other final rulemakings,[1] several of which are complex and controversial and have statutory deadlines ranging from November 1, 2001 to November 1, 2002. These rules include requiring a tire pressure warning device in new vehicles; updating the tire standards; establishing early warning reporting requirements for vehicle and equipment manufacturers; and improving child safety restraints. Although due by November 1, 2001, NHTSA has yet to issue the tire pressure warning device final rule.**

- **establish a peer review panel to ensure that data used to identify potential defects are comprehensively and thoroughly analyzed and that investigations are opened and prioritized in a consistent manner. A peer review panel can be effectively used to provide a thorough and consistent assessment of the quality of ODI's support for recommending and opening an investigation. The panel would draw on the institutional knowledge of the ODI staff and bring management together to identify high priority cases and to ensure a degree of consistency in the decision making process.**

- **develop a new defect information management system to replace the currently flawed system. This is important because the success of the TREAD Act depends on the quality and usefulness of the new information system and ODI's ability to identify potential defects.**

Adhering to TREAD Act deadlines will require extensive coordination among NHTSA and other entities involved in the rulemaking process. To date, NHTSA has made progress completing TREAD Act rules, such as the one requiring individuals to report to NHTSA the sale or lease of defective tires, and issuing several proposed

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[1] The 12 rules only reflect final rules and do not include other stages of the rulemaking process, such as an Advance Notice of Proposed Rulemaking (ANPRM) or a Notice of Proposed Rulemaking (NPRM).

rules. Unlike the rules completed thus far, many of the remaining rules are complex and controversial and have statutory deadlines. For example, although due by November 1, 2001, NHTSA has yet to issue the tire pressure warning device final rule.

The issue with the TREAD Act rulemakings is not just the number of rules NHTSA has to complete. Rather, the issue is the timely completion of complex and/or controversial rules with statutory deadlines. For example, completing the early warning reporting requirements rule by June 30, 2002, is not fully within NHTSA's control and will require extensive coordination with other offices and entities who have a role in approving or commenting on proposed rules. On December 21, 2001, NHTSA issued the Notice of Proposed Rulemaking, which describes the proposed early warning reporting parameters for vehicle and equipment manufacturers and requests comments from the public.

The early warning rule is at the heart of the TREAD Act. NHTSA has established milestone dates for the TREAD Act rules. However, to keep NHTSA on course in completing the TREAD Act rulemakings, both the Department and NHTSA will have to adhere to the milestone dates and work with the Office of Management and Budget (OMB) when its review is required. NHTSA, as well as other entities that must review the proposed rules, will need to adhere to the rulemaking schedules.

However, we have found that factors such as differing views on the substance of a proposed rule, requirements for cost/benefit analysis, and the need to have other entities review a proposed rule, will influence the time it takes to issue a rule.[2] In July 2000, we reported that the Department of Transportation (DOT) took an average of 3.8 years to complete significant rules. Further, when Congress established a statutory deadline for completing a rule, DOT met only 10 percent of the deadlines.

The Secretary of Transportation identified the timely completion of rules as a departmentwide priority. In its comments to our report, NHTSA agreed to continue working with the Department and other entities to meet the TREAD Act deadlines.

ODI's procedures for identifying defects and deciding to open investigations can be strengthened by establishing a peer review process. We found that ODI's processes and procedures, as well as the data used for identifying potential defects and opening investigations, need major improvements. A peer review panel can be effectively used to provide a thorough and consistent assessment of the quality of ODI's support

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[2] In contrast to the TREAD Act, the recently enacted Aviation and Transportation Security Act authorizes the Under Secretary of Transportation for Security, to waive requirements for an analysis that estimates the number of lives that will be saved by the regulation and the monetary value of such lives if the Under Secretary determines that it is not feasible to make such an estimate. Further, any regulation or security directive issued shall remain effective unless disapproved by the Transportation Security Oversight Board or rescinded by the Under Secretary.

for recommending and opening an investigation. A permanent peer review panel meeting regularly to discuss actions to be taken regarding recommended cases would ensure a degree of consistency in the decision making process. Further, a peer review panel would also draw on the institutional knowledge of both defects analysis and investigation staff and bring management together to identify high priority cases.

We found several instances where ODI's decision to open or not open an investigation was not consistent with the seriousness or frequency of the complaint. (See pages 12 to 16.) For example, ODI decided to open an investigation when it received three complaints over 1 year alleging a suspension problem that could cause the driver to lose control of the vehicle. In comparison, in another case ODI did not open an investigation although the number of complaints, period of time, alleged defect, and potential consequences were similar.

In addition, the data ODI currently uses to identify defect trends, primarily complaints by consumers, significantly understate the number of potential safety defects. Although the TREAD Act requires that manufacturers report early warning information to ODI, it does not require that ODI receive or solicit information from other sources, such as safety groups, plaintiff attorneys or insurance companies. Therefore, rather than relying on consumer complaints and, in the future, manufacturer data, ODI needs to develop innovative techniques for collecting and analyzing information from a wider range of sources to help identify potential trends sooner.

NHTSA concurred with our recommendations to ensure consistency in recommending and opening investigations by agreeing to establish a peer review panel and process, to develop new defect analysis and case opening procedures and train personnel regarding these procedures, and to identify innovative techniques for collecting and analyzing data from a wider range of sources.

An independent assessment would help to ensure that ODI's new defect information system meets quality, cost and schedule goals. The success of the TREAD Act will ultimately rise or fall on the quality and usefulness of the new information system and ODI's ability to identify potential defects. ODI describes its new defect information system efforts as an acquisition of commercial off-the-shelf software; however, the software will require modifications and involve systems development work.

ODI's plan to have a new $5 million information management system for identifying defects fully operational by fall 2002 is at risk because of poor project planning and management. The plan does not provide a sufficient roadmap of the work that needs to be done and how and when it will be accomplished to ensure that the new system is operating soon after the early warning reporting requirements rule is issued. Poorly defined system goals and requirements can lead to project scope changes, cost increases, and schedule delays.

The National Institute of Standards and Technology (NIST) outlines procedures to ensure that software development efforts are successful.[3] One of these procedures includes having an independent entity validate and verify that the system will meet the user's needs.

An independent assessment of ODI's information system development project could help ODI spot problems before they result in major cost increases and schedule slippages. This will require NHTSA to obtain the services of an independent entity to validate and verify the contractor's progress, reduce development risk and advise NHTSA of its findings. Given NHTSA's agreement to obtain the services of an independent entity, we have eliminated a recommendation in the draft report to assign a full-time project manager.

PRINCIPAL FINDINGS

Adhering to TREAD Act Deadlines Will Require Extensive Coordination Among NHTSA and Other Entities Involved in the Rulemaking Process

The challenges that lie ahead for NHTSA are that it must complete several complex and/or controversial TREAD Act rules and meet statutory deadlines. Thus far, NHTSA has issued three final rules, including one requiring individuals to report to NHTSA the sale or lease of defective tires, and several proposed rules. Further, NHTSA completed a study on the feasibility of using automobile insurance data to help identify possible defects, concluding that certain data from insurance companies, for example non-crash fire data, might be useful in helping to identify potential defect trends. However, NHTSA must still complete 12 final rulemakings.

Unlike the rules completed thus far, several of the remaining rules are complex and/or controversial and also have statutory deadlines, such as requiring a tire pressure warning device in new vehicles by November 1, 2001; updating the tire standards by June 1, 2002; improving child safety restraints by November 1, 2002; and most important, establishing early warning reporting requirements of defects for vehicle and equipment manufacturers by June 30, 2002. Although due by November 1, 2001, NHTSA has yet to issue the tire pressure warning device final rule.

For the early warning rule, NHTSA must determine what information manufacturers will be required to report, while taking into account the manufacturer's cost of complying with the reporting requirements. Further, NHTSA must integrate the

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[3] NIST Special Publications 500-234 and 500-165

manufacturer data into a new information system capable of handling the reporting needs resulting from the TREAD Act's early warning reporting requirement.

On December 21, 2001, NHTSA issued its proposed rule specifying the early warning data that manufacturers will be required to report, and anticipates issuing a final rule by the June 30, 2002 deadline. The proposed rule is likely to generate controversy because it specifies what data manufacturers will be required to routinely report to NHTSA. Complying with the rule may require a significant commitment of resources on the part of the manufacturers, such as new computer programs and additional staff.

We have found that factors such as differing views on the substance of a proposed rule, requirements for cost/benefit analysis, and the need to have other entities review a proposed rule, can influence the time it takes to issue a rule. NHTSA has established milestone dates for the TREAD Act rules. However, to keep NHTSA on course in completing the TREAD Act rulemakings, both the Department and NHTSA will have to adhere to the milestone dates and work with the OMB when its review is required. NHTSA, as well as other entities that must review the proposed rules, will need to adhere to the rulemaking schedules.

ODI's Procedures for Identifying Defects and Deciding to Open Investigations Can Be Strengthened by Establishing a Peer Review Process

ODI's current processes for using and analyzing data to identify potential defects and decide that potential defects should be investigated are in need of major improvements. Two factors currently affect ODI's ability to effectively identify potential defects and open investigations: (1) an unstructured approach for analyzing data and determining if a potential defect exists and warrants further investigation, and (2) the limited amount and poor quality of data ODI uses to spot defect trends.

We recognize that it is not possible to define processes and procedures that will enable ODI staff to identify potential defects with 100 percent accuracy. However, ODI will be receiving a significant amount of early warning data from manufacturers and is planning to hire 18 additional staff - a 39 percent increase. Therefore, it is particularly important that ODI establish a peer review panel, develop new defect analysis and investigative processes that define parameters for analyzing data and opening investigations, and train new staff to use these procedures.

ODI's current procedures do not provide a methodology for analyzing complaints. For example, the procedures state that defects analysis staff may review the defect database for complaints and review previous/current investigations for relevant issues, but do not describe how to conduct a thorough search of available data or how to analyze the data to identify trends.

The defect analysis procedures do not require ODI's defects analysis staff to notify senior management when they receive a complaint involving a serious injury so a timely decision to recommend or open an investigation can be made. In contrast, the Consumer Product Safety Commission (CPSC), the Federal agency responsible for regulating and investigating consumer products, requires that its Emerging Hazards Division immediately notify the Director of Recalls and Compliance and pertinent staff of any data indicating grievous injury, death, or multiple incidents.

NHTSA's Associate Administrator for Safety Assurance told us that there are not specific processes or procedures for opening investigations. Rather, investigators prioritize the opening of investigations based on the seriousness and frequency of the complaint(s). We noted several instances in which ODI's defects analysis staff recommended an investigation based on the seriousness and frequency of the complaint(s). However, the investigative staff did not prioritize and open the investigations. For example,

- Over a 4-month period, ODI received six complaints alleging that airbags did not deploy in a 1998 sedan after a frontal crash. All of the complaints noted injuries and one complaint stated the driver was seriously injured. Although ODI's defects analysis staff recommended an investigation, ODI's investigative staff did not conduct one. Within 1 year after an investigation was recommended, the number of complaints quadrupled from 6 to 24 complaints, but ODI still did not open an investigation.

- Over a 9-year period, from 1989 to 1998, ODI had 153 complaints with reports of injuries and alleged fires and burning, smoking, or melting in the steering column of two specific 1987-1989 vehicle models. Although ODI defects analysis staff recommended an investigation be opened, one was never started.

  ODI's Special Assistant to the Director told us that, at the time the investigation was recommended, the National Traffic and Motor Vehicle Safety Act only required manufacturers to provide a free remedy for recalled vehicles up to 8 years old. In contrast, the vehicles cited in the complaints were older than 8 years old. However, we question why ODI's defects analysis division did not spot the possible defect trend before 1998. ODI received 86 percent of its complaints, 131 complaints of a total of 153 complaints, between 1989 and 1996.

A peer review panel meeting regularly to discuss actions to be taken regarding recommended cases would improve ODI's consistency in opening investigations. Peer review is effective for answering questions such as how data supporting the opening of an investigation compare to the data in a similar case that was investigated. The following example illustrates how ODI may benefit from establishing a peer review panel and process. Over a 4-month period, ODI received three complaints alleging front suspension torsion bar breakage in 1993-1994 minivans, that could cause the driver to lose control of the vehicle and increase the

risk of a crash; however, no investigation was opened. In contrast, another case had three complaints with no reports of crashes over a 1-year period alleging front suspension coil spring breakage that could pose a potential compromise to the driver's ability to control the vehicle, and ODI opened an investigation.

A peer review panel can be effectively used to provide a thorough and consistent assessment of the quality of ODI's support for recommending and opening an investigation. The panel could consist of the Chiefs of the Defects Analysis and Investigation Divisions, as well as defects analysis and investigative staff. The panel would draw on the institutional knowledge of the ODI staff and bring management together to identify high priority cases and *to ensure a degree of consistency in the decision making process.*

ODI's defect database, the primary tool ODI uses to identify potential safety-related defects in vehicles and equipment, significantly understates the number of potential safety defects. For example, ODI's database contains less than 10 percent of the complaints that consumers make to manufacturers. In one case, we found that the manufacturer received 1,411 complaints regarding transmission failures resulting in the loss of fluid and increasing the risk of fire, while ODI received 32 complaints.

Further, the defect database contains incomplete and incorrectly recorded information regarding a potential defect. For example, we found complaints whereby consumers described problems with failed brakes that led to accidents in that the airbags did not deploy. However, only the airbags and not the brakes were recorded as problems in the database. Also, although complaints can be recorded to reflect the severity of the defect reported, such as "Significant Hazard without Warning," the data element is not consistently recorded. ODI staff told us that they primarily rely on the complaint descriptions for determining the alleged defect because they believe the other data elements are not consistently recorded, accurate or useful.

ODI receives and assesses on average over 34,000 safety-related and non-safety-related complaints per year. The ODI staff responsible for reviewing complaints each receive and assess an average of 200 complaints per week, allowing an average of about 12 minutes per complaint to review the information; search the defect database for similar complaints, related investigations, and recalls; and decide whether to recommend an investigation.

An Independent Assessment Would Help to Ensure That ODI's New Defect Information System Meets Quality, Cost, and Schedule Goals

ODI's project with Volpe National Transportation Systems Center (Volpe) to replace its defect database with a new information system by the fall 2002 is significantly at risk. ODI has incurred costs of at least $200,000 and has obligated $2.3 million since it started the project with Volpe in April 2001 to identify the

requirements for, and subsequently develop the new information system. Officials at Volpe told us they will meet ODI's fall 2002 deadline and $5 million budget for having the new system fully operational and ready to accept and store consumer complaints, as well as the additional early warning data resulting from the TREAD Act, that will not be defined until June 30, 2002.

However, since Volpe and ODI do not have a detailed budget for the project, we do not know if the projected $5 million is a reasonable estimate. Therefore, it is imperative that NHTSA report to the Secretary and Congress on a routine basis the status of the new information system including whether it will meet the fall 2002 schedule and the estimated budget.

ODI plans to design and fully implement the new information system within about 20 months. However, Volpe officials told us the industry typically takes 3 to 5 years to complete a new information system. Further, a systems analyst consultant that assisted us in analyzing the new system concept told us it would take at least 2 to 3 years to develop and fully implement a new information system based on the information available from ODI to date. Although both ODI and Volpe officials told us they will meet the fall 2002 deadline, they could not explain or provide us with the specific steps they plan to take to beat by over 1 year, the time typically taken to design and implement a new information system.

Historically, the Department's systems development projects, including those using commercial off-the-shelf software,[4] have been plagued by cost overruns and implementation delays.[5] For example, DOT had incurred contract costs of at least $26 million to develop a new financial management system using commercial off-the-shelf software. However, 1 year after the original implementation date, the system was still not fully operating as intended. Further, the costs of NHTSA's National Advanced Driving Simulator grew to almost twice the original estimate and the simulator was completed 3 years later than originally estimated.[6]

The NIST outlines procedures to ensure that software development efforts are successful. One of these procedures includes having an independent entity validate and verify that the system will meet the user's needs. ODI describes its new information system efforts as an acquisition of commercial off-the-shelf software. However, the software will require modifications and involve systems development work. An independent assessment of ODI's new defect information system project could help ODI spot problems before they result in major cost increases and schedule slippages. This will require NHTSA to obtain the services of an independent entity to

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[4] Implementing a New Financial Management System (OIG Report FI-2001-074, August 7, 2001).
[5] Observations on FAA's Satellite Navigation Efforts (OIG Report AV-2000-113, July 26, 2000).
[6] Development of the National Advanced Driving Simulator Resulted in Substantial Cost Increases and Schedule Delays (OIG Report IN-2001-104, September 28, 2001).

validate and verify the contractor's progress, reduce development risk, and advise NHTSA of its findings - a step NHTSA now plans to take.

The existing data in the defect database will serve as the foundation for the new information system. Therefore, it is particularly important that ODI review and edit the existing data in the defect database, including the descriptions of complaints, for accuracy and completeness before transferring the data to the new information system. Most if not all of the pertinent information in the defect database is contained in the text description of the complaint. If ODI simply transfers the data from the current defect database to the new system, it will continue to have a seriously flawed system.

SUMMARY OF RECOMMENDATIONS

We recommend that the NHTSA Administrator:

- Continue to report to the Secretary and begin reporting to Congress the milestone dates, budget estimates, and actions required to complete the TREAD Act rulemakings/actions, as well as ODI's new information system. To keep NHTSA on course in completing the TREAD Act rulemakings, both the Department and NHTSA will have to adhere to the milestone dates and work with the OMB when its review is required. NHTSA, as well as other entities that must review the proposed rules, will need to adhere to the rulemaking schedules.

- Establish a peer review panel and process to ensure that data used to identify potential defects are comprehensively and thoroughly analyzed and that investigations are opened and prioritized in a consistent manner. The panel could include the Chiefs of the Defects Analysis and Investigation Divisions, as well as defects analysis and investigative staff. Further, the peer review should be conducted on a routine basis and decisions documented to ensure consistency in the decision making process.

- Obtain the services of an independent entity to validate and verify the contractor's progress, reduce development risk, and advise NHTSA of its findings. Also, review and edit the data in the defect database for accuracy and completeness before transferring the data to the new information system.

MANAGEMENT RESPONSE AND OFFICE OF INSPECTOR GENERAL COMMENTS

The draft report was provided to NHTSA on November 7, 2001. OIG staff subsequently met with the Associate Administrator for Safety Assurance and the ODI Director to discuss the draft report findings and recommendations. In its December 4, 2001 written response to the draft report, NHTSA agreed to implement all of the recommendations or proposed an acceptable alternative action, with one exception. NHTSA's comments are presented in the Appendix to this report.

In its reply, NHTSA commented that the numerous complex TREAD Act rulemakings involving key safety issues with statutory deadlines, such as updating the tire standards and improving the safety of child restraints, should have little or no impact on the ability of NHTSA to issue the early warning rule in a timely manner.

However, as stated in our report, the issue with the TREAD Act rulemakings is not just the number of rules NHTSA has to complete. Rather, the issue is the timely completion of complex and/or controversial rules with statutory deadlines. For example, completing the early warning reporting requirements rule by June 30, 2002, is not fully within NHTSA's control and will require extensive coordination with other offices and entities who have a role in approving or commenting on proposed rules.

In the Fiscal Year 2002 DOT Appropriations Conference Report, Congress directed NHTSA to submit a notification letter to the House and Senate Committees on Appropriations if there is reasonable likelihood that the agency will not meet the deadlines specified in the TREAD Act. For these reasons, we recommended that, to keep NHTSA on course in completing the TREAD Act rulemakings, both the Department and NHTSA will have to adhere to the milestone dates and work with OMB when its review is required. NHTSA, as well as other entities that must review the proposed rules, will need to adhere to the rulemaking schedules.

NHTSA did not agree with our draft report's recommendation to assign a full-time experienced project manager to the new information system project. Given NHTSA's agreement to obtain the services of an independent entity, we have eliminated a recommendation to assign a full-time project manager.

We request that, within 30 days, NHTSA provide target dates for completing each recommended action.

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Background

In October 2000, Congress passed the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act to establish early warning reporting requirements for manufacturers so the National Highway Traffic Safety Administration (NHTSA) Office of Defects Investigation (ODI) is aware of potential defects as soon as possible. Congress passed the Act in response to the Bridgestone/Firestone, Inc. recall of 14.4 million tires. In its September 2000 hearings, Congress questioned why ODI, Firestone and Ford did not act sooner to prevent the 103 deaths and over 400 injuries associated with the defective tires. As of October 2001, these numbers have increased to over 200 deaths and 800 injuries. Congress noted that ODI had insufficient data regarding the problems with Firestone tires. However, Congress also stated that ODI did not use available data to spot trends related to failures in these tires.

The Act requires manufacturers to routinely report to NHTSA early warning data such as information on property damage claims, communications to customers, and knowledge of fatalities or serious injuries caused by possible defects in a vehicle in the United States or a foreign country. NHTSA is required to issue the early reporting requirements final rule by June 30, 2002. To carry out the TREAD Act requirements, Congress nearly doubled ODI's budget from $8,854,000 in fiscal year 2000 to $16,144,000 in fiscal year 2001. Exhibit C presents the actions taken by NHTSA to implement the TREAD Act.

NHTSA was established in 1970 as a separate operating administration within the Department of Transportation to administer the Department's motor vehicle and highway safety programs. NHTSA's ODI is responsible for identifying motor vehicles and equipment that contain safety-related defects and ensuring that the public is notified so these safety problems can be corrected. Exhibit D includes ODI's organizational chart and mission statements.

The notification and remedy provisions of the National Traffic and Motor Vehicle Safety Act require that the manufacturer notify NHTSA and vehicle owners if it determines that one of its products contains a defect that relates to motor vehicle safety. The Act also gives NHTSA the authority to investigate possible defects and to order a manufacturer to provide a remedy for any defect.

ODI's process for identifying possible defects in motor vehicles and equipment begins with a review of the complaints it receives from consumers. Complaint information is entered into a database. Staff in ODI's Defects and Recall Information Analysis Division (Defects Analysis Division) may search the database for similar complaints and related information, such as prior investigations, that may indicate a systemic safety concern. If the staff determine

that a systemic problem may exist, they prepare a report to ODI's Investigation Division recommending an investigation.

If ODI's Investigation Division agrees that a potential safety defect exists, it opens an investigation. ODI then requests information from the manufacturer such as complaints, crashes, injuries, warranty claims, and lawsuits. ODI may also supplement the manufacturer's data with inspections, tests, and surveys. Each year, ODI's Defects Analysis Division recommends on average 83 investigations, and ODI's Investigation Division opens about 67 investigations.

At any time during the investigation, ODI may decide to close the investigation because (1) the investigation did not indicate a defect existed, or (2) the manufacturer decided to conduct a recall. If ODI concludes that the data indicate a defect exists and the manufacturer does not agree, the NHTSA Administrator may issue a "Final Decision" that a safety defect exists and order the manufacturer to conduct a recall.

Findings

Adhering to TREAD Act Deadlines Will Require Extensive Coordination Among NHTSA and Other Entities Involved in the Rulemaking Process

The Deputy Secretary of Transportation recently testified before the House Committee on Energy and Commerce that NHTSA is on schedule to implement the TREAD Act's various safety requirements and plans to meet the deadlines set by Congress. To date, NHTSA has issued nine proposed rules and three final rules, including one requiring individuals to report to NHTSA the sale or lease of defective tires. Further, NHTSA completed a study on the feasibility of using automobile insurance data to help identify possible defects, concluding that certain data from insurance companies, for example non-crash fire data, might be useful in helping to identify potential defect trends. However, NHTSA must still complete 12 final rulemakings. For example, although due by November 1, 2001, NHTSA has yet to issue the tire pressure warning device final rule.

Unlike the rules completed thus far, several of the remaining rules are complex and/or controversial and have statutory deadlines, such as requiring a tire pressure warning device in new vehicles by November 1, 2001; updating the tire standards by June 1, 2002; improving the safety of child restraints by November 1, 2002; and most important, establishing early warning reporting requirements of defects for vehicle and equipment manufacturers by June 30, 2002. Therefore, the issue is not just that NHTSA has a number of rules to complete. Rather, the issue is that the timely completion of complex and/or controversial rules with statutory deadlines is not fully within NHTSA's control and will require extensive coordination with other offices and entities who have a role in approving or commenting on proposed rules.

We have found that factors such as differing views on the substance of a proposed rule, requirements for cost/benefit analysis, and the need to have other entities review a proposed rule, can influence the time it takes to issue a rule.[1] In July 2000, we reported that the Department of Transportation (DOT) took an average of 3.8 years to complete significant rules. Further, when Congress established a statutory deadline for completing a rule, DOT met only 10 percent of the

[1] In contrast to the TREAD Act, the recently enacted Aviation and Transportation Security Act authorizes the Under Secretary of Transportation for Security to waive requirements for an analysis that estimates the number of lives that will be saved by the regulation and the monetary value of such lives if the Under Secretary determines that it is not feasible to make such an estimate. Further, any regulation or security directive issued shall remain effective unless disapproved by the Transportation Security Oversight Board or rescinded by the Under Secretary.

deadlines. The Secretary of Transportation has identified the timely completion of rules as a departmentwide priority.

NHTSA has established milestone dates for TREAD Act rules. However, to keep NHTSA on course in completing the TREAD Act rulemakings, both the Department and NHTSA will have to adhere to the milestone dates and work with the Office of Management and Budget (OMB) when its review is required. NHTSA, as well as other entities that must review the proposed rules, will need to adhere to the rulemaking schedules.

The early warning reporting requirement rule is expected to be one of the most controversial and complex TREAD Act rules facing NHTSA. The rule is likely to be controversial because it will require manufacturers to routinely report data to NHTSA and may require an increase in resources on the part of the manufacturers. Further, NHTSA must also integrate the data it will receive into a new information system capable of handling the reporting needs resulting from the TREAD Act. Once the proposed rule is issued, there will likely be disagreements between NHTSA and affected parties, such as the vehicle and equipment manufacturers, over the content of the proposed rule, resulting in the final rule not being issued by the June 30, 2002 deadline.

The Alliance of Automobile Manufacturers, an association of 13 domestic and foreign automobile manufacturers, said that the early warning reporting requirement rule will not only be significant in terms of its annual effect on the economy, but that it will also likely raise novel legal or policy issues. Further, in its response to NHTSA's Advance Notice of Proposed Rulemaking, the Alliance reported that the early warning reporting rule will require a "significant commitment of resources on the part of the manufacturers" including new computer programs and additional staff.

In January 2001, NHTSA issued its Advance Notice of Proposed Rulemaking for the early warning requirements. The notice generally posed questions to the public as to who should be covered, what type of information and data should be reported, how the information should be reported, and how NHTSA might handle and utilize the information. On December 21, 2001, NHTSA issued the Notice of Proposed Rulemaking, which describes the proposed early warning reporting parameters for vehicle and equipment manufacturers and requests comments from the public.

With the technology available today, ODI can develop an early warning information system that could handle the complex and high volume reporting needs required by the TREAD Act. A sound planning process, management accountability, and strong oversight will facilitate the success of a new system. However, any delays in issuing the early warning reporting requirements final rule

also means a delay in ODI's new information system for processing the additional early warning data to help ODI identify potential defects sooner.

An Independent Assessment Would Help to Ensure That ODI's New Defect Information System Meets Quality, Cost and Schedule Goals

ODI's project with Volpe National Transportation Systems Center (Volpe) to replace its current defect database with a new information system by the fall 2002 is significantly at risk because of poor project management and planning. Specifically, a detailed project schedule and resource requirements have not been developed, project duties and responsibilities have not been finalized, and the project scope has not been fully defined. The success of the TREAD Act ultimately relies on the quality and usefulness of the new information system and ODI's ability to identify potential defects.

At our request, a systems analyst consultant assisted us in evaluating ODI's progress in developing the new information system with regards to the following general standards for system development and project planning:

- Project Schedule/Resource Management
- Project Duties and Responsibilities
- Project Scope
- Risk Management/Mitigation
- Reporting and Communications
- Documentation and Standards
- Change Management

We found several risks that may affect the quality, timeliness, and cost of the new information system. Table 1 summarizes the key risk areas, the specific risks identified, and actions that NHTSA should consider to mitigate these risks.

Table 1. Key Risk Areas and OIG Recommended Mitigation Actions for ODI's New Defect Information Management System

Risk Area	Risk Identified	Recommended Risk Mitigation Actions
Project Schedule and Resource Requirements	• Project Plan is general. • Project tasks normally performed sequentially are scheduled to be performed concurrently. • Resource requirements have not been established.	• Create a detailed project plan that will show specific tasks linked to a starting and ending date, resources, deliverables, and dependencies. A task dependency would be whether the start or conclusion of this task relies or depends on the start or conclusion of another task. In addition, include the team (e.g., ODI, Volpe) responsible for accomplishing the task. • Create a roadmap for the project including a project plan with a detailed timeline and task list of how the project will be completed. This would also define areas where time constraints are tight and provide an opportunity for "what if" analysis if these tasks were to slip by days, weeks, etc.
Project Duties and Responsibilities	• Project organization, duties, and responsibilities have not been clearly defined. • An overall Project Manager for ODI has not been designated.	• Create a detailed organizational structure that identifies roles and clearly defines responsibility for major task areas. • Define project team members and specific tasks assigned. • Assign a full-time project manager experienced in the delivery of a project of comparable scope and complexity.
Project Scope	• Data inputs, user requirements, and the parameters of migrating old data to the new system have not been defined. • Current defect database has not been evaluated for weaknesses and strengths.	• Define the full scope of the new system and users' expectations including management needs for information. • Define and address the specific system needs of defects analysts, investigators and managers. • Complete system requirements prior to working on any other subsequent concept, design and architecture tasks to avoid the need to repeat system development work and to prevent cost and time overruns. • Update detailed project plan upon completing the detailed system requirements to address final project scope. • Finalize a realistic timeframe for completion, given time constraints, full scope, system availability, and availability of TREAD Act data. • Obtain the services of an independent entity to validate and verify the contractor's progress, reduce development risk, and advise NHTSA of its findings.

ODI has incurred costs of at least $200,000 and has obligated $2.3 million since it started the project with Volpe in April 2001 to identify the requirements for, and subsequently develop, the new information system. Officials at Volpe told us they will meet ODI's fall 2002 deadline and $5 million budget for having the new system fully operational and ready to accept and store consumer complaints, as well as the additional early warning data resulting from the TREAD Act.

However, since Volpe and ODI do not have a detailed budget for the project, we do not know if the projected $5 million is a reasonable estimate.

ODI plans to design and fully implement the new information system within about 20 months after starting the project in April 2001. In comparison, Volpe officials told us the industry typically takes 3 to 5 years to complete a new information system. Further, the systems analyst consultant that assisted us in analyzing the new system concept told us it would take at least 2 to 3 years to develop and fully implement a new information system based on the information available from ODI to date. Although, both ODI and Volpe officials told us they will meet the fall 2002 deadline, they could not explain or provide us with the specific steps they plan to take to beat by over 1 year, the time typically taken to design and implement a new information system.

The current project plan does not provide a sufficient roadmap of project activities. Therefore, actual activity and progress cannot be compared to planned activity and progress. The plan lists general descriptions of tasks, but does not describe how the task will be accomplished or provide timeframes. For example, the plan lists broad work items and a description, such as *"System Development Plan: Create and maintain the system development plan."*

Further, the plan does not allocate time or costs to the tasks. Also, the only milestone dates in the project plan are for major events affecting the delivery of the new system, such as *"Development Commercial Off-the-Shelf Hardware and Software Procurement Issued – June 29, 2001"* or *"Data Migration Plan Submitted for ODI Approval – May 31, 2002."* However, several of the major events do not have an estimated date and are labeled "to be determined."

Poorly defined system goals and requirements may lead to expanding the scope of the project and changing the proposed system. As a result, costs and timeframes may significantly increase. Historically, the Department's systems development projects, including those using commercial off-the-shelf software, have been plagued by cost overruns and implementation delays.

For example, DOT had incurred contract costs of at least $26 million to develop a new financial management system using commercial off-the-shelf software. However, 1 year after the original implementation date, the system was still not fully operating as intended. Further, the costs of NHTSA's National Advanced Driving Simulator grew to almost twice the original estimate and the simulator was completed 3 years later than originally estimated.

ODI describes its new information system efforts as an acquisition of commercial off-the-shelf software. However, the software will require modifications and involve systems development work.

The National Institute of Standards and Technology (NIST) outlines validation and verification procedures to ensure that software development efforts are successful. One of these procedures includes having an independent entity validate and verify that the system meets the user's needs. Given that this project has a fixed deadline and uses a time and materials contract, it is critical that NHTSA obtain the services of an independent entity to assess ODI's and Volpe's ability to complete a quality information system on time and within budget. Specifically, the independent entity would validate and verify the contractor's progress, reduce development risk, and advise NHTSA of its findings. An independent assessment of the new defect information system project can help ODI spot problems before they result in major cost increases and schedule slippages - a step NHTSA now plans to take.

Currently, the Chief of the Information Management Division of the Office of Safety Assurance serves as the project manager on an as-needed basis and retains his other information management responsibilities. Given NHTSA's agreement to obtain the services of an independent entity to validate and verify the contractor's progress and reduce development risk, we have eliminated a recommendation in the draft report to assign a full-time project manager.

The Chief of Volpe's Computer Center told us that about 12 of the Center's staff will be involved in the project. Further, Computer Science Corporation, a contractor for Volpe, will have an equivalent of 16 full-time individuals assigned on the project. But their roles, responsibilities and tasks have not been clearly defined.

To further prevent cost overruns and changes in the scope of the project, ODI must examine and clearly define its staff duties and responsibilities and the processes and procedures required to address how the system will be used. Further, ODI must conduct a technical analysis of the current defect database to determine the accuracy and completeness of the data, and to determine whether the database is serving the purpose for which it was designed. From August 2001 through January 2002, Volpe and ODI are holding workshops to define the detailed system requirements. Although the workshops are planned through January 2002, Volpe completed a draft of the detailed system requirements in November 2001. Further, Volpe officials have already begun designing the system.

In addition to the key risk areas previously discussed, Table 2 summarizes additional risk areas and describes how the risks can be mitigated.

Table 2. Additional Risk Areas and Recommended Mitigation Actions

Risk Area	Risk Identified	Recommended Risk Mitigation Actions
Risk Management	• Risk mitigation is not clearly defined in the project plan.	• Incorporate into the detailed project plan the risk mitigation plan identifying the testing phases and readiness assessment tasks.
Reporting and Communication	• Project status reporting is not frequent enough for project size and timeframes.	• Due to the short timeframe planned for the project, submit bi-weekly status reports instead of monthly reports and include decisions pending, deliverables submitted, and resources used by task. • Include an updated project plan with each status report submitted.
Documentation and Standards	• Formalized structure for deliverable sign-off does not exist.	• Establish formal procedures for review and acceptance of deliverables.
Change Management	• Processes or procedures for tracking issues or changes in scope are not clearly defined.	• Develop and document a process for issue tracking, including resolution procedures or the final impact to the overall project. • Track the number of revisions and the frequency for the occurrences. • Develop a mitigation plan for limiting the impacts and/or frequency for change.

NHTSA's Defect Database Is Not an Effective Early Warning System

NHTSA's defect database, which is the primary tool used by ODI to identify potential safety-related defects in vehicles and equipment, does not include comprehensive and available data that is representative of the extent of potential safety defects. The database is comprised of consumer complaints to NHTSA, past and ongoing ODI investigations, manufacturer recalls, and manufacturer-issued technical service bulletins.

Manufacturer data, such as warranty claims and accident investigation data from other NHTSA databases, are not included in the defect database. ODI relies primarily on its assessment of consumer complaints to NHTSA to determine whether a potential defect exists and warrants opening an investigation. Once ODI opens an investigation, it requests information from the manufacturer, such as the number of complaints, warranty claims, and lawsuits regarding the potential defect. However, with the TREAD Act's early warning reporting requirements, manufacturers will report such data to ODI on an ongoing basis, before an investigation is opened.

ODI's database significantly understates the number of potential safety defects. For example, ODI's database contains less than 10 percent of the complaints that consumers make to manufacturers. In our review of a random sample of

59 investigations opened by ODI in 1998, we found that ODI's complaint database contained 483 complaints while the manufacturers' databases contained 5,235 complaints. In one case, we found that the manufacturer received 1,411 complaints regarding transmission failures resulting in the loss of fluid and increasing the risk of fire, while ODI received 32 complaints.

ODI receives on average over 34,000 safety-related and non-safety-related complaints per year. The ODI staff responsible for reviewing complaints each receive and assess an average of 200 complaints per week, allowing an average of about 12 minutes per complaint to review the information and search the defect database for similar complaints, related investigations and recalls. However, ODI is planning to hire 18 additional staff -- a 39 percent increase in staff. ODI intends to hire four defects analysis staff, seven investigators, one statistician, two data entry and control staff, and four administrative staff. ODI has hired four defects analysis staff, three investigators and three administrative staff.

Also, the defect database contains incorrectly recorded information and does not contain complete information regarding a potential defect. For example, we found complaints where consumers described problems with failed brakes that led to accidents in which the airbags did not deploy. However, only the airbags and not the brakes were recorded as problems in the database. Also, although complaints can be recorded to reflect the severity of the defect reported, such as "Significant Hazard without Warning," the data element is not consistently recorded. ODI staff told us that they primarily rely on the complaint descriptions for determining the alleged defect because they believe the other data elements are not consistently recorded, accurate or useful.

ODI defects analysts told us they search the text descriptions of complaints using keywords and read the descriptions to identify whether complaints are similar and may warrant further investigation. However, keyword searches are time-consuming and may produce different results, depending on the word used. For example, we searched the database for complaints that described problems with the brakes in a 1995 minivan. Using the keyword "brakes," we identified 77 complaints. However, by using the keyword "braking" we only identified 13 complaints. Likewise, different ODI staff members often do not come up with the same results due to the slight variances in the queries entered. Therefore, relevant complaints and a potential defect trend may not be identified.

ODI defects analysts also develop their own methods to keep track of complaints and potential trends because similar complaints regarding a possible defect and new complaints are not flagged in the defect database. One staff member said he keeps hard copies of specific complaints in a file organized by make, model and year of the vehicle and periodically reviews the files.

The existing data in the defect database will serve as the foundation for the new information system. Therefore, it is particularly important that ODI review and edit the existing data in the defect database for accuracy and completeness. However, the Associate Administrator told us that except for changing dates to a consistent format and the spelling of manufacturers' names and models, ODI does not plan to identify and correct improperly/inconsistently recorded data. He further stated the review of all complaint descriptions for accurate coding would be too time-consuming and burdensome. Further, Volpe officials told us that, since they have yet to conduct a technical analysis of the defect database, they do not know the extent that data will be reviewed and edited for accuracy and completeness.

We agree that reviewing and editing complaint descriptions would be time-consuming. However, most, if not all of the pertinent information in the defect database is contained in the complaint description field. Simply transferring data from the defect database to the new system will result in ODI continuing to have a seriously flawed system.

Sources Other Than the Defect Database Rarely Sought to Supplement Complaints

ODI rarely solicits internal and external information sources, such as NHTSA's accident databases, insurance companies, and plaintiff attorneys, to determine the scope of a potential defect. Outside of the defects analysts contacting complainants to verify complaints, none of the 38 cases we reviewed that recommended opening an investigation indicated that additional sources were solicited.

ODI's defect analysis procedures state "in rare cases, request information from insurance companies, automotive clubs, and other outside agency sources." According to the ODI Director, outside sources are used on a case-by-case basis. Further, the Special Assistant to the ODI Director told us that the defects analysis staff are encouraged to seek information from outside sources; however, staff must balance the need for further information with the possible premature negative publicity for a vehicle or manufacturer because of an outside data inquiry. However, the defect analysis procedures do not provide examples or guidance for determining when it is appropriate to contact additional sources.

NHTSA has databases, such as the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System (NASS), that contain data on motor vehicle accidents, including the vehicle manufacturer, model and model year. NHTSA's databases may be useful for identifying trends by comparing the complaints with accident results. The data elements in FARS/NASS that might be useful include whether or not the vehicle rolled over, the number of vehicle

occupants injured or killed, severity of injuries sustained, fire involvement, and the most serious aspect of the incident.

The Firestone tire incident illustrates the need for ODI to be more proactive and innovative in its information gathering techniques. The extent and the severity of the defect was not evident until ODI solicited and analyzed data from other sources. For example, by the time ODI opened an investigation, Firestone had already recorded 193 personal injury claims and 2,288 property damage claims, and it was a defendant in 66 lawsuits related to the ATX and Wilderness tires. Further, plaintiff attorneys also had information regarding lawsuits. However, ODI was not aware of the additional information until after it opened the investigation and requested the specific data.

Although the TREAD Act requires that manufacturers report such early warning information to ODI on a periodic basis, it does not require that ODI be provided or solicit information from other sources, such as plaintiff attorneys or insurance companies. Therefore, rather than relying on consumer complaints and, in the future, manufacturer data, ODI needs to develop innovative techniques to collect and analyze information from a wider range of sources to help identify potential trends sooner.

ODI's Procedures for Identifying Defects and Deciding to Open Investigations Can Be Strengthened by Establishing a Peer Review Process

ODI's current processes and procedures for analyzing consumer complaints are not structured. The procedures do not provide a methodology or process for analyzing complaints. For example, the procedures state that defects analysis staff may review the defect database for complaints and review previous/current investigations for relevant issues, but do not describe how to conduct a thorough search of available data or how to analyze the data to identify trends.

The procedures state that defects analysis staff may recommend an investigation when, for example, they receive a number of complaints about the same problem within a short period of time or a single complaint indicating a severe safety consequence. We reviewed the defect database for 1995 through 1999 to identify the action taken by ODI in response to complaints citing at least one death. We found instances where there was no record of ODI recommending or opening an investigation. Further there was no record as to why action was not taken. For example,

- ODI received a complaint with a related death alleging the airbag in a 1995 luxury vehicle did not deploy. However, the defect database had no record of an investigation being recommended/conducted or why action was not taken.

- ODI received a complaint with a related death alleging problems with a child safety seat (e.g., child ejected from the booster seat). The defect database had no record of an investigation being recommended/conducted for the same make/model child safety seat. Also, there was no record as to why action was not taken.

The defect analysis procedures do not require, for example, that ODI's defects analysis staff notify senior management when they receive a complaint involving a serious injury so a timely decision can be made to recommend or open an investigation. In contrast, the Consumer Product Safety Commission (CPSC) requires that its Emerging Hazards Division, responsible for analyzing hazard data, immediately notify the Director of Recalls and Compliance and pertinent staff of any data indicating grievous injury, death, or multiple incidents.

NHTSA's Associate Administrator for Safety Assurance told us that there are not specific processes or procedures for opening investigations. Rather, investigators prioritize the opening of investigations based on the seriousness and frequency of the complaint(s). We noted several instances in which ODI's defects analysis staff recommended an investigation based on the seriousness and frequency of the complaint(s). However, the investigative staff did not prioritize and open the investigations.

Specifically, in 38 of the 59 cases in our random sample, ODI's Defects Analysis Division recommended that an investigation be opened based on its analysis of complaint data.[2] However, ODI's Investigation Division did not open an investigation in 10 of the 38 or 26.3 percent of the cases. For example,

- Over a 9-year period, from 1989 to 1998, ODI had 153 complaints with reports of injuries and alleged fires and burning, smoking, or melting in the steering column of two specific 1987-1989 vehicle models. Although ODI defects analysis staff recommended an investigation be opened, one was never started.

  ODI's investigative staff does not document the reason(s) for not opening an investigation. However, ODI's Special Assistant to the Director told us that, at the time this investigation was recommended, the National Traffic and Motor Vehicle Safety Act only required manufacturers to provide a free remedy for recalled vehicles up to 8 years. The vehicles cited in the complaints were older than 8 years old. However, we question why ODI's Defects Analysis Division did not spot the possible defect trend before 1998. ODI received 86 percent of its complaints, 131 complaints of a total of 153 complaints, between 1989 and 1996.

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[2] The remaining 21 cases started immediately as investigations, bypassing the defect analysis phase.

- Over a 4-month period, ODI received six complaints alleging airbag non-deployment in a specific 1998 sedan after a frontal crash. All complainants noted injuries with one complainant seriously injured. ODI did not open an investigation although a crash reconstruction specialist investigating the accident involving the seriously injured driver concluded that the airbag should have deployed.

  ODI officials told us they did not open an investigation because the accident involving the seriously injured driver was an isolated incident. Furthermore, regarding the other five complaints, an ODI Chief in investigations said the crashes did not involve sufficient impact to warrant airbag deployment since they were driving at a low speed when the crashes occurred.

- Over a 4-month period, ODI received three complaints alleging front suspension torsion bar breakage in two specific 1993-94 minivan models that could cause the driver to lose control of the vehicle and increase the risk of a crash. Although ODI's Defects Analysis Division recommended an investigation be opened, one was not conducted.

  An ODI Chief in investigations said that an investigation was not warranted because it had no reports of crashes or loss of vehicle control and because three complaints did not constitute a high enough failure rate to warrant an investigation. In contrast, another case that ODI recommended investigating had three complaints in a 1-year period. The complaints had no reports of crashes, but alleged front suspension coil spring breakage, which posed a potential compromise to the driver's ability to control the vehicle. In this case, ODI opened an investigation.

- Over a 22-month period, from February 1997 to November 1998, ODI received 23 complaints alleging exhaust leakage in a specific 1993 minivan with some complainants reporting headaches, nausea, and dizziness. The manufacturer issued three technical service bulletins regarding broken exhaust manifolds and odors in the minivan. Although ODI defects analysis staff recommended opening an investigation, one was not conducted.

  ODI's Chief of Defects and Recall Information Analysis told us that a defect trend was not supported and that it was highly unlikely that exhaust fumes into the cabin would cause the reported complaints of sickness. However, the manufacturer issued three technical service bulletins over 2 1/2 years, and ODI received multiple complaints on this problem. Therefore, we question why an investigation was not opened.

A peer review panel meeting regularly to discuss actions to be taken regarding recommended cases would improve ODI's consistency in opening investigations. Peer review is effective for answering questions such as how data supporting the

opening of an investigation compare to the data in a similar case that was investigated. The prior examples regarding the torsion bar and coil spring breakages illustrate how ODI may benefit from establishing a peer review panel and process.

A peer review panel can be effectively used to provide a thorough and consistent assessment of the quality of ODI's support for recommending and opening an investigation. The panel could consist of the Chiefs of the Defects Analysis and Investigation Divisions, as well as defects analysis and investigative staff. The panel would draw on the institutional knowledge of the ODI staff and bring management together to identify high priority cases and to ensure a degree of consistency in the decision making process.

We recognize that it is not possible to define processes and procedures that will enable ODI staff to identify potential defects with 100 percent accuracy. But, ODI can improve the quality of its decision making by clarifying its defect analysis and investigative procedures and documenting the process for recommending and opening investigations. The new procedures should instruct ODI staff on how to (1) conduct a thorough search of available data for potential defects; (2) analyze the data and identify trends; (3) develop a recommendation for opening an investigation; and (4) document in the new information system why action was not taken. Also, the procedures should describe the purpose and objectives of the peer review panel and the peer review process.

In addition, ODI can ensure consistency by conducting training for its entire staff regarding the revised procedures. This is imperative since ODI plans to hire an additional 18 staff, a 39 percent increase in staff. Further, more specific procedures are needed because ODI will receive and analyze a high volume of new data, such as warranty claims from vehicle manufacturers.

ODI Does Not Have a Process for Monitoring the Opening of Investigations

The ODI Director stated that cases that do not result in an investigation remain open for monitoring and are never closed. ODI staff are responsible for monitoring the cases for new complaints and trends, but are not required to submit progress or status reports on their efforts. Therefore, ODI senior managers do not know whether staff search for new complaints or whether a case should be re-evaluated for investigation. We searched the defect database for the 10 cases in our random sample that did not result in an investigation. We identified additional complaints in 7 of the 10 cases, and in 2 of the cases the number of complaints significantly increased; however, ODI did not open an investigation. Specifically,

- Within 1 year after ODI decided not to open an investigation into the non-deployment of airbags in the 1998 sedan previously cited, the number of

complaints quadrupled from 6 complaints to 24 complaints, but ODI still did not open an investigation. Since ODI does not maintain monitoring records, we do not know whether ODI staff tracked/reported the additional complaints or recommended again that an investigation be opened.

- Within 1 year after deciding not to open the investigation into the exhaust leaks in the 1993 minivan previously cited, we found the complaints more than doubled from 23 to 53 complaints. However, ODI still did not open an investigation.

Most ODI Investigations Result in a Recall

Our analysis of the random sample of investigative cases indicated that over 60 percent of ODI investigations result in a recall. Specifically, 30 of the 49 investigations in our sample resulted in a recall. However, as shown in Table 3, from 1996 to 2000, manufacturers, without an ODI investigation, initiated 80.9 percent of the safety-related recalls. ODI investigations accounted for the remaining 19.1 percent. However, ODI is responsible for almost 55 percent of the total number of vehicles and equipment recalled during this same period.

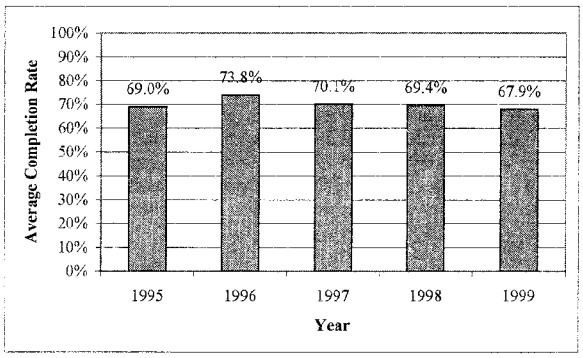
Table 3. Manufacturer Initiated and NHTSA Influenced Safety Recalls 1996-2000

	Defect Recalls Total		Manufacturer Issued		NHTSA Influenced	
Year	Recalls	Vehicles, Equipment and Tires Involved	Recalls	Vehicles, Equipment and Tires Involved	Recalls	Vehicles, Equipment and Tires Involved
1996	239	16,932,587	181	4,138,029	58	12,794,558
1997	251	14,817,599	200	4,439,297	51	10,378,302
1998	308	17,551,092	247	5,711,377	61	11,839,715
1999	320	51,542,327	254	39,132,966	66	12,409,361
2000	446	38,863,195	383	9,785,402	63	29,077,793
Totals	1,564	139,706,800	1,265	63,207,071	299	76,499,729
Median	308	17,551,092	247	5,711,377	61	12,409,361
Average	313	27,941,360	253	12,641,414	60	15,299,946
Percentage	100.0%	100.0%	80.9%	45.2%	19.1%	54.8%

As shown in Figure 1, recalled vehicles and equipment that were actually repaired remained relatively constant at 70 percent on average from 1995 to 1999. ODI's Chief of Defects and Recall Information Analysis told us that he considers a recall adequate if the manufacturer repairs at least 60 percent of the vehicles/equipment recalled. Further, he stated that generally the more severe the defect the higher the

recall completion rate. For example, an owner is more likely to bring a vehicle in for repair if one of the consequences of the defect is a fire while using the vehicle. In contrast, if the owner decides that the defect may not impact their vehicle, such as overheating of a headlight switch when towing, then the completion rate tends to be lower.

Figure 1. Safety Recall Completion Rates 1995 to 1999



Using Best Practices Can Improve ODI's Defect Analysis and Investigation Processes

In our review of regulatory agencies' authority and practices, we found that the scope and extent of CPSC's regulatory authority most closely parallels NHTSA's. Over the years, CPSC has made changes, such as the use of multiple information sources, in how it collects data to identify hazards. These changes were the result of CPSC's own efforts, as well as in response to a 1997 U.S. General Accounting Office report. CPSC employs several methods that may be used by ODI to identify defects, prioritize investigations, publicize recalls, and involve senior management in the decision making process. The best practices are illustrated in the following examples.

Multiple Sources of Information Are Used to Identify Defects

CPSC uses several sources of information and databases to detect safety-related problems in products. The sources of information include: (1) data from coroners, fire departments, hospitals, emergency rooms and trade associations as well as

product liability lawsuits, newspaper articles on accidents, hotline complaints and written consumer complaints; (2) field data collected by investigators including investigation reports and findings; and (3) compliance data that include corrective actions taken by manufacturers.

Investigations and Recalls Are Prioritized Based on Severity of Hazard

CPSC requires that its Emerging Hazards Division, responsible for analyzing hazard data, immediately notify the Director of Recalls and Compliance and pertinent staff, of any data indicating grievous injury, death, or multiple incidents. Also, CPSC establishes criteria for selecting potential hazards to address. These criteria are written in agency regulations and include the severity of the risk, the intended or foreseeable use or misuse of the product, and the population group exposed to the products including children, the elderly, and the handicapped.

CPSC uses a hazard priority classification system to assist in selecting the level and intensity of the corrective action the manufacturer should initiate as part of a recall. For example, a Class A hazard, the highest priority, is reserved for product defects that present a strong likelihood of death or grievous injury to the consumer. Class A hazards warrant the highest level of manufacturer and Commission attention. Manufacturers must take immediate and comprehensive corrective action to identify and notify consumers, retailers, and distributors.

Corrective Actions Are Developed by CPSC and the Manufacturer

Once CPSC and the manufacturer agree on the need for a remedy to correct a product defect, they work together to develop an effective plan for notifying the public and implementing the recall. One condition of the recall is that the company must agree that CPSC may publicize the terms of the corrective action plan to inform the public of the hazard. CPSC publicizes recall information in a variety of ways. For example, CPSC develops the wording of the press release, and the press release is then issued jointly with the manufacturer. Manufacturers may also be required to use additional methods to publicize the recall, such as television announcements, recall posters in stores that sold the defective product, and website announcements.

Senior Management Is Involved in the Investigation and Recall Process

Commissioners meet weekly with senior compliance managers to discuss the status of investigations and recent emerging hazards data. Additionally, the Commissioners receive monthly reports from the Director of Compliance summarizing potential defects, ongoing investigations, newly opened

investigations, and recall remedy plans. Also, the Commissioners are immediately informed of complaints or notices involving a death or risk of serious injury.

Recommendations

We recommend that the NHTSA Administrator:

1. Ensure the timely completion of TREAD Act rulemakings and other actions by:

   - Continuing to report to the Secretary and begin reporting to Congress on a routine basis, the milestone dates, budget estimates, and actions required to complete the TREAD Act rulemakings/actions, as well as ODI's new information system. To keep NHTSA on course in completing the TREAD Act rulemakings, both the Department and NHTSA will have to adhere to the milestone dates and work with OMB when its review is required. NHTSA, as well as other entities that must review the proposed rules, will need to adhere to the rulemaking schedules.

2. Ensure consistency in recommending and opening investigations and that highest priority cases are investigated by:

   - Establishing a peer review panel and process to ensure data used to identify potential defects are comprehensively and thoroughly analyzed and that investigations are opened and prioritized in a consistent manner. The panel could include the Chiefs of the Defects Analysis and Investigation Divisions, as well as defects analysis and investigative staff. Further, the peer review should be conducted on a routine basis and decisions documented to ensure consistency in the decision making process.
   - Developing new defect analysis and case opening procedures.
   - Training personnel regarding the new defect analysis and investigative procedures.
   - Identifying innovative techniques for collecting and analyzing defect information from a wider range of sources.
   - Evaluating best practices and using them as appropriate.

3. Ensure that ODI has the appropriate information system infrastructure and processes in place to promptly identify potential defects as intended by the TREAD Act by:

   - Obtaining the services of an independent entity to validate and verify the contractor's progress, reduce development risk, and advise NHTSA of its findings.
   - Mitigating the risks identified in this report regarding the new defect information system.
   - Reviewing and editing the existing data in the defect database for accuracy and completeness before transferring the data to the new information system.

Management Response and OIG Comments

The draft report was provided to NHTSA on November 7, 2001. OIG staff subsequently met with the Associate Administrator for Safety Assurance and ODI Director to discuss the draft report findings and recommendations. In its December 4, 2001 written response to the draft report, NHTSA agreed to implement all of the recommendations or proposed an acceptable alternative action with one exception. NHTSA's comments are presented in the Appendix to this report.

In response to our recommendations, NHTSA agreed to ensure the timely completion of TREAD Act rulemakings and other actions by continuing to work with the Department and other entities to meet the TREAD Act deadlines. Although we also recommended that NHTSA begin reporting the status of its TREAD Act efforts to Congress, NHTSA proposed that it continue to brief congressional committee staff on the status of the TREAD Act requirements and provide further information when specifically requested by Congress. We consider NHTSA's proposed alternative action acceptable.

In its reply, NHTSA commented that the numerous complex TREAD Act rulemakings involving key safety issues with statutory deadlines, such as updating the tire standards and improving the safety of child restraints, should have little or no impact on the ability of NHTSA to issue the early warning rule in a timely manner.

However, as stated in our report, the issue with the TREAD Act rulemakings is not just the number of rules NHTSA has to complete. Rather, the issue is the timely completion of complex and/or controversial rules with statutory deadlines. For example, completing the early warning reporting requirements rule by June 30,

2002, is not fully within NHTSA's control and will require extensive coordination with other offices and entities who have a role in approving or commenting on proposed rules.

In the Fiscal Year 2002 DOT Appropriations Conference Report, Congress directed NHTSA to submit a notification letter to the House and Senate Committees on Appropriations if there is reasonable likelihood that the agency will not meet the deadlines specified in the TREAD Act. For these reasons we recommended that, to keep NHTSA on course in completing the TREAD Act rulemakings, both the Department and NHTSA will have to adhere to the milestone dates and work with OMB when its review is required. NHTSA, as well as other entities that must review the proposed rules, will need to adhere to the rulemaking schedules.

To ensure consistency in recommending and opening investigations and that high priority cases are investigated, NHTSA agreed to:

- develop new defect analysis and case opening procedures and train personnel in these new procedures;
- establish a peer review panel and process; and
- identify innovative techniques for collecting and analyzing defect information from a wider range of sources.

Although NHTSA agreed to develop new defect analysis and case opening procedures and processes, it also stated that the procedures currently used by ODI to identify potential safety defects that warrant formal investigation have worked well and that few, if any, significant safety defects have escaped detection. We strongly disagree with this statement. The Firestone tire incident, subsequent passage of the TREAD Act, and the case examples cited in our report clearly illustrate that ODI's processes and procedures need major improvements.

In addition, although NHTSA agreed that it is appropriate to identify and adopt "best practices" for identifying and investigating defects, it needs to specify how it plans to evaluate the best practices and which best practices it will use.

NHTSA also agreed to ensure that ODI has the appropriate information system infrastructure and processes in place to promptly identify potential defects as intended by the TREAD Act. Specifically, NHTSA agreed to:

- review and edit the existing data in the defect database for accuracy and completeness before transferring the data to a new information system;
- mitigate the risks identified in this report regarding the development of a new defect information system; and

- obtain the services of an independent entity to validate and verify the contractor's progress, reduce development risk, and advise NHTSA of its findings.

NHTSA needs to provide a target date for mitigating the risks identified in this report and obtaining the services of an independent contractor.

NHTSA did not agree with our draft report's recommendation to assign a full-time experienced project manager to the new information system project. Given NHTSA's agreement to obtain the services of an independent entity to validate and verify the contractor's progress and reduce development risk, we have eliminated a recommendation in the draft report to assign a full-time project manager.

Exhibit A. Major Contributors to This Report

THE FOLLOWING INDIVIDUALS CONTRIBUTED TO THIS REPORT.

Name	Title
Ronald H. Hoogenboom	Program Director
Madeline M. Chulumovich	Project Manager
Sara J. Ancona	Management and Program Analyst
Wendy M. Harris	Auditor
Danielle E. Roeber	Management and Program Analyst
Mark A. Stiglitz	Management and Program Analyst

Exhibit B. Objectives, Scope and Methodology

Our review was performed at the request of Senator John McCain, Ranking Minority Member, Senate Committee on Commerce, Science, and Transportation. The Committee, at its September 12, 2000 Firestone tire recall hearing, examined the manner in which ODI handles information received from consumers, insurance companies, and manufacturers, and questioned ODI's preparedness for handling information that may contain early warning signs of product defects.

Senator McCain specifically requested that we: (1) evaluate the quality and quantity of data and criteria NHTSA uses to identify vehicle safety problems; (2) assess the efficiency of NHTSA procedures/processes for initiating and investigating problems, and issuing consumer alerts or recalls; and (3) identify notification, investigation and recall requirements considered as "best practices" by other regulatory agencies and that may be used as models for improving ODI.

To evaluate the quality and quantity of data and criteria NHTSA uses to identify vehicle safety problems and assess the efficiency of NHTSA procedures/processes, we took a stratified random sample of 316 investigative phases started by ODI in 1998. The stratified random sample was taken from 1998 to ensure that the investigations chosen for review included the manufacturers' reporting of recall completion rates for six quarters.

Using a 90 percent confidence level we took a stratified random sample of the 316 investigative phases resulting in a total of 59 cases for in-depth review – 20 initial evaluations, 12 preliminary evaluations, 5 engineering analyses, 6 service queries, 5 recall queries, and 11 recalls. In selecting our sample we focused on individual investigative phases; however, once the sample was selected we reviewed all phases of a case from start to finish. For example, if an initial evaluation was selected in the sample, we reviewed the entire investigative case including the initial evaluation and the corresponding preliminary evaluation, engineering analysis, and/or recall. Therefore, the case was reviewed from the first action taken by ODI to the last action taken.

For the 59 cases, ODI provided us with pertinent documents in the public file, such as the opening and closing reports, information requests, manufacturer responses, and recall notification letters. We reviewed and analyzed the information in each case, focusing on the action taken by ODI. We evaluated the cases for triggers or criteria for opening an investigation, such as complaints, complaint rate, crashes, injuries, deaths, and fires. We reviewed the timeframes to complete each phase. We also compared the cases at each investigative phase. Based on our analysis, we determined whether the action taken by ODI was "reasonable."

To further assess the quality and quantity of data NHTSA used to identify vehicle safety problems, we contracted with a systems analyst consultant to assist us in performing database and trend analysis of NHTSA's (1) Defect Information Management System (DIMS) database, (2) Fatality Analysis Reporting System (FARS), and (3) National Automotive Sampling System (NASS)/General Estimate System (GES).

The focus of the DIMS analysis included: (1) examining the ability of the system to maintain/support data integrity; (2) evaluating the ability of the system to support complaint analysis, relationships and associations, such as the relationship of complaint to investigation information; and (3) determining the system's potential for detecting complaint trends or for using DIMS as an early warning system. We also identified the weaknesses and strengths of using DIMS as a primary tool and FARS and NASS as secondary tools for identifying potential defects. In addition, we evaluated DIMS' ability to support the additional information and analysis requirements resulting from the TREAD Act.

Further, the consultant assisted us in evaluating ODI's and Volpe National Transportation Systems Center's proposed information system architecture and implementation plans to replace DIMS. Specifically, the consultant (1) evaluated ODI's progress in developing the new system, and (2) identified the risks, if any, with the proposed system and how the risks could be mitigated.

To assess the efficiency of NHTSA procedures and processes for initiating and investigating safety problems, we reviewed and analyzed applicable laws, regulations, orders/notices, guidelines and policy statements regarding motor vehicle safety and safety-related defects. We also evaluated ODI's processes and procedures as part of the in-depth case reviews. We interviewed NHTSA's Associate Administrator for Safety Assurance, as well as ODI's Director, Division Chiefs, investigators, and defects analysts. In addition, we interviewed NHTSA officials from the Office of General Counsel and the Office of Plans and Policy.

To identify notification, investigation and recall requirements considered as "best practices" by other regulatory agencies, we reviewed and analyzed laws and regulations pertaining to the Consumer Product Safety Commission (CPSC), Food and Drug Administration (FDA), and Research and Special Programs Administration - Office of Pipeline Safety (RSPA-OPS). We also interviewed senior management officials from CPSC, Environmental Protection Agency, Federal Aviation Administration, Federal Railroad Administration, FDA, Occupational Safety and Health Administration, United States Coast Guard, and RSPA-OPS.

To further evaluate NHTSA's efforts to identify potential safety-related defects and to implement the TREAD Act, we interviewed the previously cited NHTSA officials as well as former NHTSA senior executives. We also interviewed

officials from: (1) safety organizations including Advocates for Highway and Auto Safety, Center for Auto Safety, Insurance Institute for Highway Safety, Public Citizen, and Safety Forum; (2) automobile manufacturers including DaimlerChrysler Corporation; Ford Motor Company; General Motors Corporation; Toyota Motor Sales, USA, Inc.; and Volkswagen of America, Inc.; and (3) the Alliance of Automobile Manufacturers.

Our work was performed at NHTSA Headquarters in Washington, D.C., from October 2000 to September 2001 in accordance with Government Auditing Standards prescribed by the Comptroller General of the United States.

PRIOR AUDIT COVERAGE

Reviews by the Office of Inspector General

We have not issued any reports on NHTSA's Office of Defects Investigation within the past 5 years.

Reviews by the U.S. General Accounting Office (GAO)

In January 2001, GAO issued a report on NHTSA's ability to detect and recall defective replacement crash parts because of potential concerns about the safety of aftermarket crash parts and recycled airbags. GAO found that NHTSA has broad authority to set safety standards for aftermarket crash parts. However, NHTSA has not determined that these parts pose a significant safety concern and has not developed safety standards for them. GAO also found that NHTSA's ability to identify and recall unsafe aftermarket parts is limited.

Exhibit C. Actions Taken by NHTSA to Implement the TREAD Act

(As of December 2001)

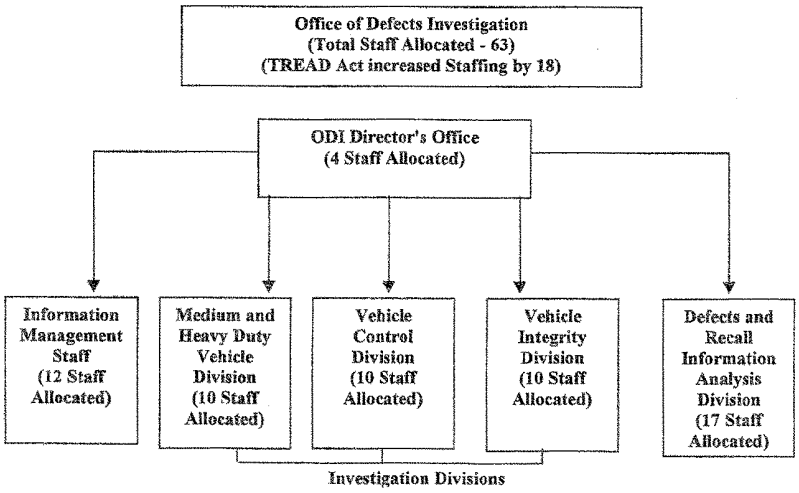
TREAD Act Section	Purpose	Actions to Implement TREAD Act	Statutory Deadline	Action to Date
§ 3(c): Sale or Lease of Defective Tires	Requires individuals to report to the Secretary when knowingly and willfully selling or leasing for use on a vehicle a defective or noncompliant tire when having actual knowledge that the manufacturer has notified dealers of such defect or noncompliance.	Rulemaking	01/29/01	**Completed:** Final Rule issued 07/23/01.
§ 5(b): Safe Harbor	Precludes individuals from receiving criminal punishment if the person (1) at the time of the violation, did not know that the violation would cause death or serious injury and (2) corrects the improper report or failure to report within a reasonable time. The Secretary shall establish by regulation what constitutes reasonable time and sufficient correction.	Rulemaking	01/29/01	**Completed:** Final rule issued 07/24/01.
§ 3(d): Insurance Study	Requires the Secretary to determine the capability and benefits of obtaining aggregate information regarding insurance claims.	Study	03/01/01	**Completed:** Report issued on 03/05/01.
§ 13: Tire Pressure Warning Device	Requires a warning system in new vehicles to indicate to the driver when a tire is significantly underinflated. Requirement becomes effective 2 years after the completion of the rulemaking.	Rulemaking	11/01/01	Notice of Proposed Rulemaking issued 07/26/01.
§ 14(h): Booster Seat Study	Requires the Secretary to study the use and effectiveness of booster seats and submit the results to Congress.	Study	11/01/01	Draft report undergoing final Agency review.
§ 14(i): Education Program	Requires the Secretary to develop a 5-year strategic plan to reduce deaths and injuries, caused by failure to use booster seats, by 25% among 4 to 8 year olds.	Program	11/01/01	Draft plan undergoing final Agency review.
§ 15: Recall Criteria	Requires the Secretary to review and update all standards, criteria, procedures, and methods in determining whether to open a defect or noncompliance investigation. The Secretary shall report findings to Congress.	Report	11/01/01	No action yet taken by NHTSA.
§ 16: Follow-Up Report	Requires the Secretary to report to Congress on the implementation of the TREAD Act and provide recommendations for additional amendments.	Report	11/01/01	Draft Report undergoing final Agency review.
§ 10: Tire Standards	Requires the Secretary to update the tire standards (Standards 109 and 119).	Rulemaking	06/01/02	Notice of Proposed Rulemaking sent to the Office of the Secretary (OST) on 09/10/01.
§ 11: Improved Tire Information	Requires the Secretary to improve the labeling of tires to assist consumers in identifying tires that may be subject to a recall.	Rulemaking	06/01/02	Notice of Proposed Rulemaking issued 12/19/01.

TREAD Act Section	Purpose	Actions to Implement TREAD Act	Statutory Deadline	Action to Date
§ 3(b): Early Warning	Requires manufacturers to report claims data, warranty data, customer satisfaction campaigns and recalls, and any incidents of serious injuries or fatalities (allegedly or proven to be caused by a possible defect) for which the manufacturer receives actual notice.	Rulemaking	06/30/02	Notice of Proposed Rulemaking issued 12/21/01.
§ 12: Rollover Tests	Requires the development of a dynamic test on rollovers by 11/01/02 and creation of a consumer information program. The Secretary shall conduct a rulemaking to determine how best to disseminate the test results.	Ratings Program	11/01/02	Request for Comments published on 07/03/01.
§ 14(a): Safety of Child Restraints	Requires the Secretary to draft regulations for improving the safety of child restraints, including minimizing head injuries from side impact collisions. The Secretary must consider several criteria, therefore resulting in multiple rulemakings.	Rulemaking	11/01/02	Notice of Proposed Rulemaking sent to OST on 12/03/01
§ 14(g): Ratings Program	Requires the Secretary to establish by regulation a child restraint safety rating consumer information program.	Rulemaking	11/01/02	Notice of Proposed Rulemaking issued 11/06/01.
§ 3(a): Report on Defects in Foreign Countries	Requires manufacturers to report within 5 working days when conducting a safety recall or other safety campaign in a foreign country for an identical or substantially similar vehicle as a vehicle offered for sale in the United States	Rulemaking	None	Notice of Proposed Rulemaking issued 10/11/01.
§ 5(a): Civil Penalties	Amends the regulations to reflect changes in the National Traffic and Motor Vehicle Safety Act regarding civil penalties.	Rulemaking	None	**Completed:** Final Rule issued 11/14/00.
§ 6(a): Acceleration of Remedy	Permits the Secretary to require manufacturers to accelerate the remedy program if the Secretary finds that there is a risk of serious injury or death and that the acceleration can be reasonably achieved by expanding the sources of replacement parts, authorized repair facilities, or both.	Rulemaking	None	Notice of Proposed Rulemaking issued on 12/11/01.
§ 6(b): Reimbursement Prior to Recall	Requires manufacturers to include in their remedy programs a plan for reimbursing owners who incurred the cost of the remedy within a reasonable time in advance of the manufacturers' notification of recalls. The Secretary may establish by regulation what constitutes a reasonable time and other reasonable conditions for the reimbursement plan.	Rulemaking	None	Notice of Proposed Rulemaking issued on 12/11/01.

Exhibit C. Actions Taken by NHTSA to Implement the TREAD Act

TREAD Act Section	Purpose	Actions to Implement TREAD Act	Statutory Deadline	Action to Date
§ 7: Sale of Replaced Tires	Requires manufacturers to include in remedy programs a plan for how manufacturers will prevent replaced tires from being resold and how to limit disposal of replaced tires in landfills. Manufacturer will include information about the implementation of the plan in each quarterly report to the Secretary.	Rulemaking	None	Notice of Proposed Rulemaking issued on 12/18/01.
§ 8: Sale of Replaced Equipment	Prohibits the sale or lease of any vehicle equipment (including tires) for installation on vehicles when the equipment is subject to a recall. An exception exists if the defect or noncompliance is remedied before delivery.	Rulemaking	None	Notice of Proposed Rulemaking issued 07/23/01.
§ 9: Certification Label	Requires intermediate or final stage manufacturers, for vehicles built in more than one stage, to certify that they complied with specifications provided by the first manufacturers or that they have elected to assume responsibility for complying with the Federal Motor Vehicle Safety Standards.	Rulemaking	None	Drafting Rulemaking Support Paper.

Exhibit D. ODI's Organizational Structure and Mission Statements



Office of Defects Investigation Mission Statements

Office of Defects Investigation

Mission: Conduct testing, inspections, and investigations necessary for the identification and correction of safety-related defects disclosed in motor vehicles and equipment, and administer the safety-related defect notification requirements of the National Traffic and Motor Vehicle Safety Act of 1966, as amended.

Information Management Staff

Mission: Compile information and data provided by consumers concerning potential safety-related defects. Provide and operate a data management system for collection, storage, retrieval, and analysis of all information and data received in ODI pertinent to accomplishing the office mission. Develop supportive special reports, statistical data, presentations and analyses, and prepare in-depth replies to correspondence relating to the ODI mission.

Defects and Recall Information Analysis Division

Mission: Collect and analyze complaint and defect information and data for the identification and technical determination of incidents and trends indicating the existence of a potential safety-related defect that may lead to a recall campaign or public disclosure of a safety problem. Perform the initial technical analysis of all data that ODI receives, and conduct field investigations, surveys, and testing to locate and identify potential safety-related defects in motor vehicles and related equipment. Administer the manufacturers' defect notification systems and recall procedures for motor vehicles and related equipment.

Investigation Divisions - Vehicle Control, Vehicle Integrity, and Medium and Heavy Duty Vehicle Divisions

Mission: Perform the initial and in-depth engineering and technical analysis of all data received by ODI and other sources to locate and identify potential safety-related defects in motor vehicles and related equipment. Provide the investigative and technical expertise and the initiative required to support each phase of the investigation through testing, field investigations, and surveys. Assure the creation of appropriate investigative documentation to support official defect determinations and for use in the event of litigation.

Appendix. Management Comments

Memorandum

U.S. Department
of Transportation

National Highway
Traffic Safety
Administration

Subject: NHTSA's Response to the Recommendations in the OIG Draft Report, "Review of the Office of Defects Investigation;" Project No. 00M3017M000

Date: December 4, 2001

From: Jeffrey W. Runge, M.D.
Administrator

Reply to
Attn of:

To: Thomas J. Howard
Deputy Assistant Inspector General
for Maritime and Highway Safety Programs

This memorandum sets forth the response of the National Highway Traffic Safety Administration (NHTSA) to the recommendations contained in the subject draft report prepared by your office. We thank you and your staff for the extensive efforts exerted in preparing the draft and look forward to working with your office on this and other matters of mutual interest.

Recommendation No. 1: Ensure the timely completion of TREAD Act rulemakings and other actions by:

- Continuing to report to the Secretary and begin reporting to Congress on a routine basis, the milestone dates, budget estimates, and actions required to complete the TREAD Act rulemakings/actions as well as ODI's new information system. To keep NHTSA on course in completing the TREAD Act rulemakings, the Department will have to establish schedules for meeting deadlines at each rulemaking stage and work with OMB when its review is required.

NHTSA Response:

NHTSA concurs with this recommendation. Soon after the TREAD Act was enacted, the agency developed a detailed monitoring system, including milestone dates for interim

activities, to keep track of progress in implementing the statute. NHTSA has also had a series of regular monthly meetings attended by senior management on the four main subject matter areas covered by the Act: tires, child restraint systems, defects, and rollover. We have also regularly submitted progress reports to the Office of the Secretary (OST) (including a monthly report to the Deputy Secretary) and met with senior OST officials when appropriate. We have also worked with OMB on rulemaking and related issues.

We wish to point out, however, that the discussion in the draft report with respect to TREAD Act rulemakings goes well beyond the subject of the report; i.e., most of those rulemakings are not related to the activities of the Office of Defects Investigation. In fact, the agency has met all of its statutory deadlines with respect to the defect-related provisions of the Act (section 3(c) (reporting the sale or lease of defective tires), section 3(d) (study of possible use of insurance company data), section 5(a) (increased civil penalties), and section 5(b) (new criminal penalties)) and is continuing to move forward to promptly implement several other defect-related provisions that do not have such deadlines. While the TREAD Act also requires NHTSA to engage in numerous complex rulemakings involving other key safety areas (tires, child restraints, and rollover), those should have little or no impact upon the ability of the agency to issue the early warning rule in a timely manner.

With respect to the recommendation regarding reporting to Congress, we have conducted several informal briefings of the staff of the relevant committees on our progress, and we will be submitting a formal status report in the near future pursuant to section 16 of the Act. We will continue to work with the relevant committees and provide any additional reporting that they may desire.

Recommendation No. 2: Ensure consistency in recommending and opening investigations and that highest priority cases are investigated by:

- Establishing a peer review panel and process to ensure data used to identify potential defects are comprehensively and thoroughly analyzed and that investigations are opened and prioritized in a consistent manner . . . .
- Developing new defect analysis and investigative procedures.
- Training personnel in the new defect analysis and investigation procedures.
- Developing innovative techniques to collect and analyze defect information from a wide range of sources.
- Evaluating best practices and using them as appropriate.

NHTSA Response:

NHTSA concurs with this recommendation. We wish to note, however, that we believe that the procedures currently used by the Office of Defects Investigation (ODI) to identify potential safety defects that warrant a formal investigation have worked well, given the limitations of the data and information that has been available. Over the past few years, ODI investigations have influenced well over half of the vehicles that have been recalled to remedy safety defects. In addition, the number of ODI-influenced recalls has steadily risen over the past 10 years, and well over half of ODI's investigations have led to recalls. We do believe that very few, if any, significant safety defects have escaped detection, even given the relatively limited data that has been available to date.

Nevertheless, we agree that there is room for improvement in ODI's screening procedures. Therefore, we concur with the OIG recommendation to establish a review panel comprised of the Division Chiefs and selected staff investigators that would review the screeners' recommendations for opening defect investigations. We agree that such a panel would bring increased consistency and help to properly prioritize the office's investigative resources. We have implemented this approach, with the first panel meeting on November 29, 2001.

We also concur in the recommendation to develop and formalize the procedures to be used by the ODI screeners in the Defect and Recall Information and Analysis Division to analyze the available information about potential defects. This will be particularly important in view of the extensive amount of new information that will be available under the forthcoming "early warning" reporting regulations. (The recommendation refers to "defect analysis and investigative procedures." However, the entire report focuses on the way ODI identifies potential defects for investigation rather than the manner in which it conducts its investigations. At this time, we do not see any need to revise ODI's procedures and processes for conducting its defect investigations.) ODI is currently in the process of developing a "control plan" for the screening process. We plan to finalize it after the issuance of the early warning final rule, in the fall 2002. Of course, we will then promptly train all screeners to assure that they understand and properly implement the new procedures.

ODI is always looking to increase its sources of information about potential defects. For several years, we have conducted a variety of outreach programs to encourage wider reporting of such information. We have given presentations to numerous audiences, including consumer groups, accident investigators, industry groups, insurance companies, state government employees, law enforcement groups, civic organizations, and at automotive trade shows, which have engendered new sources of information about potential safety defects. Under the TREAD Act, we will be receiving extensive information from manufacturers, yet we will continue to pursue additional sources of relevant information.

ODI concurs that it is appropriate to attempt to identify and adopt "best practices" for identifying and investigating defects, and we will continue to do so. However, we have previously considered some of the practices referred to in the OIG report, such as those used by the Consumer Product Safety Commission (CPSC), and have concluded that they would not be practical in the ODI context. For example, we do not have the field staff that the CPSC uses to contact local coroners and other individuals across the country.

Recommendation No. 3: Ensure that ODI has the appropriate infrastructure and processes in place to promptly identify potential defects as intended by the TREAD Act by:

- Assigning a full-time project manager to manage ODI's project to develop a new information system. The project manager must have experience in the delivery of a project of comparable scope and complexity.
- Obtaining the services of an independent contractor to conduct an independent validation and verification of the project's progress and risks.
- Reviewing and editing the existing data in the defect database for accuracy and completeness before transferring the data to the new information system.

- Implementing the recommended risk mitigation plan for ODI's new defect information management system, as appropriate.

NHTSA Response:

NHTSA does not believe that the project to develop and implement the new information system for ODI is at significant risk – risk being defined as the inability of ODI to bring on line, on time, and within budget an information system that will allow the office to successfully perform its duties and responsibilities. Any information system development project has some associated risks. However, from the outset, ODI has structured the project to address and reduce these risks. It did so by contracting with the Volpe National Transportation Systems Center (Volpe Center) to assist in managing the project, by engaging in detailed project planning, by arranging for constant ODI staff involvement and collaboration through numerous working groups and meetings, by utilizing a proven development methodology, and by deciding to use well known, widely used, and widely available commercial software products, rather than products designed and developed exclusively for ODI.

ODI and the Volpe Center have taken numerous actions to minimize the risks associated with this project. ODI evaluated risk mitigation strategies during the project initiation phase and discussed these issues with several independent firms. In addition, ODI has identified and documented potential risks in its internal project plan, which will allow it to promptly take action if any impediments arise. Moreover, the project management methodology used by the Volpe Center is an iterative process, involving constant interaction between the developers and the client (ODI), which maximizes the developers' understanding of the client's requirements and minimizes the need for changes and delays.

It is relevant that the new ODI system will rely on proven, widely used, and widely available commercial products. Thus, we do not believe that the projects identified in the OIG report as having experienced significant delays and cost overruns are analogous, since the ODI system will be based on proven technologies and available commercial-off-the-shelf products that will require minimal customization.

Even though NHTSA is confident that the project will be completed on time and within the allocated budget, in response to the OIG recommendation, we plan to acquire the services of an independent contractor to assess the quality and completeness of the new information system's development. Included in this task will be an analysis of risks and mitigation strategies, including those already identified by ODI, and the periodic review of all key deliverables and potential exposure to new risks. NHTSA does not agree that it would be beneficial to hire a "full-time project manager," particularly at this point in the project. We believe that the current project management structure has worked well and will continue to do so. The Chief of the Information Management Division of the Office of Safety Assurance serves as the project manager, who is responsible for assuring that ODI's needs are met in a proper and timely manner. Although he retains the other responsibilities of his position, the major portion of his time is devoted to this project. He is assisted within ODI by the Office Director, who is the project "sponsor," and by other ODI managers and key users. The Volpe Center is responsible for the day-to-day management of design and development. This matrix management structure ensures that all parties play a significant role and minimizes the risks of failure and delay. In addition, ODI uses an internal project plan to track critical performance measures.

Adding an additional level of management (presumably to supervise the Volpe Center's management efforts) would not be productive. ODI selected the Volpe Center to participate in this project based on its reputation and past successes. It has information technology (IT) professionals located on-site who provide IT expertise and who have become very familiar with ODI's information requirements. In NHTSA's view, these Volpe Center experts can and will provide appropriate technical direction and guidance as the project continues.

Even apart from the IT experience of the existing project management, those individuals have also amassed a great deal of knowledge regarding the ODI's procedures and information needs. A new independent project manager would not have this background, and educating him or her would detract from the project and would likely lead to delays.

ODI and the Volpe Center are developing a Data Migration Plan to assure that all appropriate data that is in the current defects database will be transferred to the new system. That data will be reviewed for quality under a Data Quality Control Plan, which will identify improperly or inconsistently recorded data. All records that do not comply with the quality standards will be retained in "Hold-Files." They will then be assessed by ODI and either included in the new database, corrected, or disposed of. Both the Data Migration Plan and the Data Quality Control Plan will be completed by June 30, 2002.

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